EAST Search History

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•	S19	4	"6093726"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
	S20	3	"6174894"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
	S21	5	"6177442"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
	S22	3	"6207676"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
	S23	4	"6291474"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
	S24	3	"6391883"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
	S25	2	"6573275"	US-PGPUB; USPAT	OR .	ON	2007/04/05 13:24
	S26	1	"20020061913"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:24
	S27	2	"20040082572"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:25
	S28	. 2	"20050119130"	US-PGPUB; USPAT	OR	ON	2007/04/05 15:11
	S29	305	549/14;514/433.ccls.	US-PGPUB; USPAT	OR	ON	2007/04/05 15:11
	S30	323	549/14;514/433.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR :	ON	2007/04/05 15:11

EAST Search History

•	Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
	S1	2	"7119049"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 12:19
	S2	34	"3249499"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 13:10
	S3	13	"0545099"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 13:10
	S4	12	"545099"	EPO; DERWENT	OR	ON	2007/04/05 13:11
	S5	8	"3657449"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:12
	S6	5	"3538225"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
	S7	48	"3917592" ·	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
	S8	7	"4032573"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
	S9	6	"4194008"	US-PGPUB; USPAT	OR .	ON	2007/04/05 13:14
	S10	24	"5223526"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:15
	S11	12	"5416103"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
	S12	30	"5438070"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
	S13	9	"5633218"	US-PGPUB; USPAT	OR ,	ON	2007/04/05 13:16
	S14	1	"5914344"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:17
	S15	8	"5922732"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
	S16	6	"5965744"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
	S17	. 1	"5965774"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
	S18	8	"5968947"	US-PGPUB; USPAT	OR ·	ON	2007/04/05 13:22

L12 ANSWER 5 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Title compds. I [A = substituted pyrazoles, thioles, pyridines, etc.; R1

H, alkyl, alkylsulfinyl, etc.; R2 = H, F, C1, etc.] were prepared For example, N-acylation of 2-(1,3-dimethylbutyl)phenylamine with acid chloride II afforded pyrazolylcarboxanilide III in 70% yield. In

(Uses) (Uses)
(Uses)
(Uses)
(Ureparation of pyrazolylcarboxanilides and related compds. as microbicide
agents)
RN 851755-23-2 HCAPLUS
CN 1,4-0-xathin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 26 Aug 2004 ACCESSION NUMBER: 2004:696341 HCAPLUS 141:225520
Preparation of oxathienylcarboxamides as microbicide agents.
Dunkel, Ralf; Elbe, Hans-Ludwig; Rieck, Heiko; Greul, Nico Joerg; Wachendorff-Neumann, Ulrike; Dahmen, Peter; Kuck, Karl-heinz; Hartmann, Benoit Bayer Cropscience Aktiengesellschaft, Germany PCT Int. Appl., 94 pp.
CODEN: PIXXD2
Patent 141:225520 DOCUMENT NUMBER: TITLE: INVENTOR(S): PATENT ASSIGNEE(S): SOURCE: DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

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	WO	2004	0720	23		A2		2004	0826		WO 2	2004-	EP10	53		2	0040	205	
	WO	2004	0720	23		A3		2005	0407										
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A 20040205 WO 2004-EP1053

OTHER SOURCE(S): MARPAT 141:225520 L12 ANSWER 5 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

$$R^1$$
 R^2
 R^3
 G^3
 G^3

Title compds. I [G1 = halo, CF3, CHF2, cycloproply; G2, G3 = H, CH3; R1, R2, R3, R4 = H, F, C1, CH3, etc.; R5 = H, alkyl, alkylsulfinyl, etc.; Z = Z1, Z2, Z3, Z4; Z1 = (un)substituted phenyl; Z2 = (un)substituted cycloalkyl, bicycloalkyl; Z3 = (un)substituted alkyl, cycloalkyl, Z4 = (un)substituted cycloalkyl, alkenyl, alkynyl, etc.; X = (O)n; n = O-2) and their pharmaceutically acceptable salts were prepared for example, ling oupling
of 2'-aminobiphenyl-4-carbaldehyde-0-methyloxime and oxathienylcarboxylic

acid II. e.g., prepared from ethyl-2-chloro-3-keto-4,4,4-trifluorobutyrate in 3-steps, afforded oxathienylcarboxamide III in 21% yield. In venturia apple protection assays, 8-examples of compds. I exhibited 100%

in 3-steps, afforded oxathienylcarboxam apple protection assays, 8-examples of efficiency at 100 g/ha (sic) application.

17 746624-50-0P 746624-51-1P 746624-52-2P 746624-53-3P 746624-55-1P 746624-55-55-5P 746624-53-3P 746624-55-7P 746624-58-8P 746624-59-9P 746624-65-P 746624-68-P 746624-68-P 746624-68-P 746624-68-P 746624-68-P 746624-68-P 746624-71-5P 746624-71-7P 746625-71-7P 7

ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
746625-14-9P 746625-15-0P 746625-16-1P
746625-17-2P 746625-18-3P 746625-19-4P
746625-20-7P 746625-21-8P 746625-22-9P
746625-23-0P 746625-22-1P 746625-22-9P
746625-23-0P 746625-27-4P 746625-28-5P
746637-89-8P 746637-90-1P 746637-91-2P
746637-99-9P 746637-91-2P 746637-95-6P
746637-90-0P 746638-00-6P 746637-91-2P
746638-02-8P 746638-00-6P 746638-01-7P
746638-02-8P 746638-00-6P 746638-01-7P
746638-01-1P 746638-00-2P 746638-01-8P
746638-01-1P 746638-01-2P 746638-01-8P
746638-01-1P 746638-12-0P
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN
(Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES

(Uses) (USES) (prepn. of oxathienylcarboxamides as microbicide agents.)
RN 746624-50-0 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-N-[4':-[methoxyimino|methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-51-1 HCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[2-(1,3,3-trimethylbutyl)phenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746624-54-4 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-55-5 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME) RN CN

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

RN 746624-52-2 HCAPLUS
CN 1,4-0xathiin-3-carboxamide,
N-{2-(1,3-dimethylbucyl)phenyl}-5,6-dihydro-5methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-53-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-[2(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746624-56-6 HCAPLUS
1,4-Oxathin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl){1,1'-biphenyl]-2-vyl-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9Cl) (CA

(CA INDEX NAME)

RN 746624-57-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-5-methyl-N-(4'-[{(1-methylethoxy)imino]methyl]{[1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)-(9CI)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-58-8 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-[4'(trifluoromethyl){1,1'-biphenyl}-2-yl}- (9CI) (CA INDEX NAME)

RN 746624-59-9 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(2-cycloheptylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-60-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-66-8 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2yl)-5,6-dihydro-2-(trifluoromethyl)- (SCI) (CA INDEX NAME)

RN 746624-67-9 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[2-(1,3-dimethylbutyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-68-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-69-1 HCAPLUS

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-62-4 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexy1-4-fluoropheny1)-5,6-dihydro-2-(trifluoromethy1)- (9CI) (CA INDEX NAME)

RN 746624-63-5 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(4-chloro-2-cyclohexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-64-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-65-7 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(2-cyclooctylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[4'(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9C1) (CA INDEX NAME)

(CA INDEX NAME)

RN 746624-70-4 HCAPLUS
CN 1,4-0xathiin-3-carboxamide, 5,6-dihydro-N-[4'-[[(1-methylethoxy)imino]methyl]{1,1'-biphenyl}-2-yl]-2-(trifluoromethyl)-

RN 746624-71-5 HCAPLUS
CN 1,4-Oxathian-3-carboxamide,
5,6-dihydro-N-[4'-[(propoxyimino)methyl)[1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-72-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-fluoro{1,1'-biphenyl}-2-yl}5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

NH-C S

RN 746624-73-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-fluoro[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

NR-C. S

RN 746624-74-8 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, N-[3'-fluoro-4'-[(propoxyimino)methyl)[1,1'-biphenyl]-2-yl]-5,6'dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

S CH= N-OPr-n

RN 746624-75-9 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-2'-methyl{1,1'-biphenyl}-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 746624-79-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- [9CI) (CA INDEX NAME)

NH-C S

RN 746624-80-6 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[2-(2-cyclohexyl-1-methylethyl)phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

NH-C S

RN 746624-81-7 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(3',5'-difluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME) L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

NH-C S

RN 746624-76-0 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(4'-bromo(l,1'-blphenyl)-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

NH-C-S

RN 746624-77-1 HCAPLUS
CN 1.4-Oxathin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

NH-C S

RN 746624-78-2 HCAPLUS CN 1,4-Oxachiin-3-carboxamide, N-[3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continue

RN 746624-82-8 HCAPLUS
CN 1,4-Oxathin-3-carboxande,
5,6-dihydro-N-(4'-iode(1,1'-biphenyl]-2-yl)-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

NH-C S

RN 746624-83-9 HCAPLUS CN 1,4-Oxathiin-3-carboxamide; 5,6-dihydro-N-[2-(1-methyl-3-butenyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Me CH-CH2-CH==CH2

RN 746624-84-0 HCAPLUS CN 1.4-Oxathin-3-carboxamide, N-(4'-fluoro-3'-methyl{1,1'-biphenyl}-2-yl)-5.6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME) L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

NH-C-S

RN 746624-85-1 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-{3'-fluoro-4'-methyl{1,1'-biphenyl}-2-yl}5,6-dihydco-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

NH-C S

RN 746624-86-2 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-[2-(2-cyclopentyl-1-methylethyl)phenyl]-5,6dihydro-2-(trifluoromethyl)- (9Cl) (CA INDEX NAME)

CF3 NH

RN 746624-87-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[i,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

NH-C-O-O-CF3

RN 746624-91-9 HCAPLUS CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(2-(1-methylnonyl)phenyl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Me | CH-(CH₂)7-Me

RN 746624-92-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-(4'-bromo-2'-fluorof[1,1'-biphenyl]-2-yl)-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

NH-C S

RN 746624-93-1 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-5'-fluoro[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-88-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylbutyl)phenyl]-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

S O CH-Pr-1

RN 746624-89-5 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,:5,6-dihydro-N-{4'-[1-{2-propynyloxy|imino|ethyl]{1,1'-biphenyl}-2-yl]-2-(trifluoromethyl}- (9CI)
(CA INDEX NAME)

NH-C
0
CF3

C-Me
N-O-CH2-C≡ECH

RN 746624-90-8 HCAPLUS
CN 1,4-Omathin-3-carboxamide, 5,6-dihydro-N-[4'[imino(methoxyamino)methyl] {1,1'-biphenyl}-2-yl]-2-(trifluoromethyl)-(9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

NH-C S

RN 746624-94-2 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[3'-chloro-4'-[1-(methoxyimino)ethyl)[1,1'-biphenyl]-2-yll-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

NH-C-Ne

RN 746624-95-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[3'-fluoro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

NH-CH CF3

RN 746624-96-4 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(2-(1-methylhexyl)phenyl]-2(trifluoromethyl)- (SCI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-97-5 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-{2-(1-cyclohexylethyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-98-6 HCAPLUS CN 1,4-Oxachin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-99-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-ethylpropyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-00-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[4-fluoro-2-(1-methylbutyl)phenyl]-5,6-

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-04-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[1[methoxyimino]propyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI)

(CA INDEX NAME)

RN 746625-05-8 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide,
N-(4'-bccmo-3'-fluorof(1,1'-biphenyl)-2-yl)-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-06-9 HCAPLUS
CN 1,4-Oxachin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[2-(1,3,3-trimethylpnenyl)] henyll- (9C1) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-01-4 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[3'-chloro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- |9CI) (CA INDEX NAME)

RN 746625-02-5 HCAPLUS
CN 1,4-0xathiin-3-carboxamide,
N-[2-(1,3-dimethylpentyl)phenyl]-5,6-dihydro-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-03-6 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, N-[2-[2-(2,2-dichlorocyclopropyl)-1-methylethyl]phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 746625-07-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-10-5 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
5,6-dihydro-N-[4'-[dmethoxyimino)methyl][1,1'biphenyl]-2-yl]-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

мео-и-сн

RN 746625-12-7 HCAPLUS
(N 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-6-methyl-N-[4'-[[(1-methyl)imino]methyl)[1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)(9CI)
(CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

746625-13-8 MCAPLUS 1,4-Oxathinn-3-carboxemide, N-(3',4'-dichloro(1,1'-biphenyl)-2-yl)-5,6-dibydro-6-methyl-2-(trifluoromethyl)- (9CT) (CA IMDEX NAME)

RN 746625-14-9 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-6-methyl-2-(trifluoromethyl)-N-[2(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

746625-15-0 HCAPLUS 1,4-Oxathiin-3-carboxanide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746625-19-4 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl}-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA NAME)

746625-20-7 HCAPLUS [1,4-0xathiun-3-carboxamide, N-[2'-chloro-4'-[(methoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746625-21-8 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3',5,5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

746625-16-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-{(propoxyimino)methyl}{1,1'-biphenyll-2-yl]-5,6-dihydro-6-methyl-2-(crifluoromethyl)- (9CI) (CA INDEX

NAME)

746625-17-2 HCAPLUS 1,4-Oxathiin-3-carboxamids, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746625-18-3 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

112 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

746625-22-9 HCAPLUS : 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3,3',5'-trifluoro(1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746625-23-0 HCAPLUS
1,4-Oxathinn-3-carboxamide, 5,6-dihydro-N-(3',4,5'-trifluoro(1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746625-24-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-hexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-25-2 HCAPLUS
CN 1.4-Oxathin-3-carboxamide, N-[2-(1-ethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-26-3 HCAPLUS CN 1.4-Oxathin-3-carboxamide, N-(4'-cyano[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-27-4 HCAPLUS
CN 1,4-oxathin-3-carboxamide, N-(2',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6dihydro-2-(trifuoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746637-91-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 2-(difluoromethyl)-5,6-dihydro-N-[2-(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

RN 746637-92-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 2-(difluoromethyl)-N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro- (9CI) (CA INDEX NAME)

RN 746637-94-5 HCAPLUS
CN 1,4-Oxachin-3-carboxamide, N-(3',4'-dichloro(1,1'-biphenyl]-2-yl)-2(diffloromethyl)-5,6-dihydro- (9C1) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-28-5 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
2-cyclopropyl-N-(3',4'-dichloro(1,1'-biphenyl)2-yl)-5,6-dihydro- (9CI) (CA INDEX NAME)

RN 746637-89-8 HCAPLUS
CN 1,4-Oxacthin-3-carboxamide,
5,6-dihydro-6-methyl)-2-(trifluoromethyl)-N-[4'(trifluoromethyl)[1,1'-biphenyl)-2-yl]- (9CI) (CA INDEX NAME)

RN 746637-90-1 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-6methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746637-95-6 HCAPLUS
CN 1,4-0xathiin-3-carboxamide; 2-(difluoromethyl)-N-[3'-fluoro-4'[(propoxyimino)methyl)[1,1'-biphenyl)-2-yl]-5,6-dihydro- (9CI) (CA INDEX NAME)

RN 746637-96-7 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(2-(3-methyl-1propylbutyl)phenyl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746637-97-8 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[2-(1-ethyl-3-methylbutyl)phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746637-98-9 HCAPLUS
1,4-Oxathin-3-Carboxamide, N-[2-(1,3-dimethyl-3-butenyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746637-99-0 HCAPLUS
CN 1,4-oxathiin-3-carboxamide,
N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

746638-00-6 HCAPLUS
1,4-Oxathiin-3-carboxamide,
4'-brome[1,1'-biphenyl]-2-yl)-5,6-dihydro-2(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

746638-01-7 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(4'-chloro-2'-methyl{1,1'-biphenyl}-2-yl)5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide [9CI] (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746638-05-1 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-[2-(2-cyclopropy]-1-methylethyl)phenyl]-5,6dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

746638-06-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[2-(3,3-dimethyl-1-butynyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746638-07-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-(4'-bromo-3'-methyl[1,1'-biphenyl]-2-yl)-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746638-02-8 HCAPLUS | 1,4-0xathiin-3-carboxamide, N-{3',4'-dichloro[1,1'-biphenyl]-2-yl}-5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide {9CI} (CA INDEX NAME)

RN 746638-03-9 HCAPLUS ;
CN 1,4-Oxathiin-3-carboxamide;
N-[2-(1,2-dimethylbutl)phenyl]-5,6-dihydro-2(trifluoromethyl)-,4,4-dioxide (9CI) (CA INDEX NAME)

746638-04-0 HCAPLUS
1,4-0xathiin-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746638-08-4 HCAPLUS | 1,4-0xathin-3-carboxamide, N-acetyl-N-[2-{1,3-dimethylbutyl}phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746638-09-5 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[2,2,2-trifluoro-1-(methoxy,mino)ethyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

746638-11-9 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(3-methylbutyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746638-12-0 HCAPLUS 1,4-0xathiin-3-carboxamide, -(3,3-dimethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

$$G^3$$
 G^3
 G^3

Title compds. I [G1 = CF3, cyclopropyl; G2, G3 = H, CH3; R1, R2, R3, R4 = H, F, Cl, CH3; Z = Z1, Z2, Z3, Z4; Z1 = (un)substituted phenyl; Z2 = (un)substituted cycloalkyl, bicycloalkyl; Z3 = (un)substituted alkyl; Z4

III

H, F, Cl, CH3; Z = Zl, Z2, Z3, Z4; Z1 = (un)substituted phenyl: Z2 = (un)substituted cycloalkyl, bicycloalkyl; Z3 = (un)substituted alkyl; Z4

(un)substituted cycloalkyl, alkenyl, alkynyl, etc.] and their pharmaceutically acceptable salts were prepared For example, coupling of 2'-aminobiphenyl-4-carabledhyde-O-methyloxime and oxathienylcarboxylic acid II, e.g., prepared from ethyl-2-chloro-3-ket-0-4, 4-trifluorobutyrate in 3-steps, afforded oxathienylcarboxamide III in 21% yield. In venturia apple protection assays, 8-examples of compds. I exhibited 88% efficiency at 100 g/ha (sic) application.

17 46624-53-3P 746624-51-P 746624-55-5P 746624-53-P 746624-55-5P 746624-55-5P 746624-55-5P 746624-55-5P 746624-55-5P 746624-65-P 746624-95-P 746625-06-P 746625

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 26 Aug 2004

ACCESSION NUMBER: 2004:695242 HCAPLUS

DOCUMENT NUMBER: 141:225519

TITLE: Preparation of oxachienylcarboxamides as microbicide Agents.

Dunkel, Ralf; Elbe, Hans-Ludwig; Rieck, Heiko; Greul,
Joerg Nico: Wachendorff-Neumann, Ulrike; Dahmen,
Peter; Kuck, Karl-Heinz
Bayer Cropscience A.-G., Germany
Ger. Offen., 40 pp.
CODEN: GWXXBX INVENTOR (S): PATENT ASSIGNEE(S): SOURCE: Patent German DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: THEORMATION.

ATENT NO.

E 10306244

U 20040212056

A1 20040826

A2 2515922

A1 20040826

A2 2004021033

A2 20040826

A3 20040826

A4 20040826

A5 20040826

A5 20040826

A5 20040826

A5 20040826

A6 20040826

A7 20040826

A8 20040831

A8 20040826

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A8 20040826 PRIORITY APPLN. INFO.: WO 2004-EP1053

ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
746625-20-7P 746625-21-8P 746625-22-9P
746625-23-0P 746625-24-1P 746625-25-2P
746625-26-3P 746625-27-4P 746625-28-5P
746637-89-8P 746637-90-1P
RL: AGR (Agricultural use): BSU (Biological study, unclassified): SPN
(Synthetic preparation): BIOL (Biological study): PREP (Preparation); USES (Uses) (Uses) (prepn. of oxathienylcarboxamides as microbicide agents.)
RN 746624-50-0 HCAPLUS
CN 1.4-Oxathiin-3-carboxamide,
5.6-dihydro-N-[4'-([methoxymino)methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

MARPAT 141:225519

746624-51-1 MCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[2-(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

RN 746624-52-2 HCAPLUS
CN 1,4-0xathiin-3-carboxamide,
N-[2-(1,3-dimethylburyl)phenyl]-5,6-dihydro-5methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-53-3 HCAPLUS
CN 1,4-ORathiin-3-carboxamide,
5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-[2{1,3,3-trimethylbutyl)phenyl}- (9CI) (CA INDEX NAME)

RN 746624-54-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX.NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-57-7 HCAPLUS
CN 1,4-oxathin-3-carboxamide, 5,6-dihydro-5-methyl-N-[4'-[[(1-methylethoxy) imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)[9CI]
(GA INDEX NAME)

1-Pro-N=-CH

RN 746624-58-8 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-[4'(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-55-5 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-56-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-5-methyl-2-(trifluoromethyl)- [9CI) (CA INDEX
NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 746624-59-9 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2-cycloheptylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-60-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2{trifluoromethyl}- (9CI) (CA INDEX NAME)

RN 746624-62-4 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexyl-4-fluorophenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN RN 746624-63-5 HCAPLUS CN 1,4-OXACTHIO-3-Carboxamide, N-(4-chloro-2-cyclohexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME) (Continued)

746624-64-6 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-65-7 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2-cyclooctylphenyl)-5,6-dihydro-2-(trifluoromethyl)- {9CI} (CA INDEX NAME)

746624-66-8 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-yl}-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-70-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-{4'-{[{1-methyl}imino]methyl}{1,1'-biphenyl}-2-yl}-2-{trifluoromethyl}-{9CI}

(CA INDEX NAME)

RN 746624-71-5 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-N-[4'-[dpropoxyimino)methyl][1,1'biphenyl]-2-yl}-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-72-6 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-{4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl}-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

RN 746624-67-9 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-{2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

746624-68-0 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(3',4'-dichloro(1,1'-biphenyl)-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-69-1 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746624-73-7 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-fluoro[1,1'-biphenyl)-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-74-8 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[{propoxyimino}methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-75-9 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(4'-chloro-2'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-76-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-(4'-bromo(1,1'-blpheny1)-2-y1)-5,6-dihydro-2(trifluoromethy1)- (9CI) (CA INDEX NAME)

NH-C S

RN 746624-77-1 HCAPLÚS CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

NH-C-S

RN 746624-78-2 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-82-8 HCAPLUS CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(4'-lodo[1,1'-bipheny1]-2-y1)-2-(trifluoromethy1)- (9CI) (CA INDEX NAME)

RN 746624-83-9 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydron-1{2-(1-methyl-3-butenyl)phenyl}-2(trifluoromethyl)- (9C1) (CA INDEX NAME)

RN 746624-84-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 746624-79-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-80-6 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[2-(2-cyclohexyl-1-methylethyl)phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-81-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3',5'-difluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continue

RN 746624-85-1 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-86-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-[2-(2-cyclopentyl-1-methylethyl)phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-87-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746624-88-4 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylbutyl)phenyl]-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-89-5 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[1-[(2-propynyloxy)imino]ethyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI)
(CA INDEX NAME)

746624-90-8 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-{4'(imino(methoxyamino)methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)(9CI) (CA INDEX NAME)

112 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746624-94-2 HCAPLUS
1,4-0xathin-3-carboxamide, N-[3'-chloro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-y1]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-95-3 HCAPLUS

harmonian in Acathorn 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[1-(methoxyimino)ethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-96-4 HCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-{2-(1-methylhexyl)phenyl}-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

746624-91-9 HCAPLUS

1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylnonyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-92-0 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(4'-bromo-2'-fluoroj[,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-93-1 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3'-chloro-5'-fluoro[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

RN 746624-97-5 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-{2-(1-cyclohexylethyl)phenyl}-5,6-dihydro-2(trifluoromethyl)- (921) (CA INDEX NAME)

746624-98-6 HCAPLUS
1,4-Oxathin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-99-7 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-[2-(1-ethylpropyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746625-00-3 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[4-fluoro-2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-01-4 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[3'-chloro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- [9CI] (CA INDEX NAME)

RN 746625-02-5 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[2-(1,3-dimethylpentyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9Cl) (CA INDEX NAME)

RN 746625-03-6 HCAPLUS
CN 1.4-Oxathiin-3-carboxamide, N-[2-[2-(2.2-dichlorocyclopropyl)-1-methylethyl]phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 746625-07-0 HCAPLUS .

CN 1,4-Oxathin-3-carboxanide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (SCI) (CA INDEX NAME)

RN 746625-10-5 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-M-[4'-[(methoxyimino]methyl][1,1'-biphenyl]-2-yl]-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

MeO-N=CH

RN 746625-12-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-6-methyl-N-[4'-[[(1-methyl-thoxy) imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)(9CI)
(GA_INDEX_NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-04-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[1[methoxyimino)propyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI)

INDEX NAME)

RN 746625-05-8 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-(4'-bromo-3'-fluoromethyl)-2-yl)-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-06-9 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[2-(1,3,3-trimethylphenyl])- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continue

RN 746625-13-8 HCAPLUS
CN 1,4-Oxacthin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-14-9 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-6-methyl-2-(trifluoromethyl)-N-[2{1,3,3-trimethylbutyl)phenyl}- (9CI) (CA INDEX NAME)

RN 746625-15-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(3',4'-dichloro-5-fluoro(1,1'-biphenyl)-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 746625-16-1 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[{propoxyimino}methyl}][1,1'- biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX

n-Pro-N= CH

RN 746625-17-2 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-18-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-{4'-fluoro-3'-methyl{1,1'-biphenyl}-2-yl}5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-22-9 HCAPLUS CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(3,3',5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-23-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(3',4,5'-trifluoro[1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-24-1 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(2-hexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (SCI) (CA INDEX NAME) L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continue

RN 746625-19-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX

RN 746625-20-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[2'-chloro-4'-[(methoxyimino)methyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

RN 746625-21-8 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3',5,5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continue

RN 746625-25-2 HCAPLUS CN 1,4-Oxachiin-3-carboxamide, N-[2-(1-ethylbuty1)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-26-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-(4'-cyano[1,1'-biphenyl]-2-yl)-5,6-dihydro-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-27-4 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(2',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6dihydro-2-tcrifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-28-5 HCAPLUS

L12 ANSMER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN CN 1,4-Oxathiin-3-carboxamide, 2-cyclopropyl-N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro- (9CI) (CA INDEX NAME) (Continued)

RN 746637-89-0 HCAPLUS
CN 1,4-Oxathian-3-carboxamide,
5,6-dihydro-6-methyl-2-(trifluoromethyl)-N-[4'(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

RN 746637-90-1 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide,
N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-6methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Title compds. [I; R = H, alkyl, haloalkyl: Z = alkenyl, alkynyl, haloalkenyl, haloalkynyl: X, Y = halo, cyano, MOZ, alkyl, alkoxy, alkylthio, haloalkyl, haloalkylthio; m, n = 0-4: A = 5-6 membered substituted heterocyclyl], were prepared Thus, Z'-amino-1,1'-biphenyl-4-carbaldehyde O-allyloxime (preparation given) PERSN

2'-amino-1,1'-biphenyl-4-carbaldenyde O-aliyioximu (preparation) Et1N was treated with 4-difluoromethyl-2-methylthiazole-5-carbonyl chloride in PhMe at room temperature followed by stirring for 3 h at 50° to give 49.68 N-(4'-{(g)-{(allyloxy)imino|methyl|-1, 1'-biphenyl-2-yl)-4-(difluoromethyl)-2-methyl-1,3-thiazole-5-carboxamide. The latter at 100 ppm gave 100% control of Venturia inaequalis. 705944-48-59 POS944-84-99 RE: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

(Uses)
(preparation of biphenylcarboxamides as agricultural fungicides and insecticides)
705944-48-5 HCAPLUS
1,4-Oxathin-3-carboxamide,
-(1-(cyclopropylmethoxy)imino]ethyl][1,1
'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

705944-84-9 HCAPLUS
1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-[1-[(2-propen)loxy)imino]ethyl][1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 24 Jun 2004
ACCESSION NUMBER: 2004:509994 HCAPLUS
DOCUMENT NUMBER: 141:54333
TITLE: Preparation of biphenylcarboxamides as agricultural fungicides and insecticides
Dunkel, Ralf: Elbe, Hans-Ludwig: Rieck, Heiko: Greul, Joers Nico: Wachendorff-Neumann, Ulrike: Mauler-Machnik, Astrid: Dahmen, Peter: Kuck, Karl-Heinz: Losel, Peter
PATENT ASSIGNEE(S): Bayer Cropscience AG, Germany
GGr. Offen., 70 pp.
CODEN: GWXXBX
PATENT ACC. NUM. COUNT: 1

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

		ENT .															ATE	
		1025															0021	213
	WO	2004	0549	82		A1		2004	0701	,	WO 2	003-	EP13	498		2	0031	201
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
			CN,	co,	CR,	CU,	CZ,	ÐΕ,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	Hυ,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	ΚZ,	LC,
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,
			NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	TJ,
			TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW	
		RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,
			BY,	KG,	ΚZ,	MD,	RU,	TJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,
			ES,	FI,	FR,	GB,	GR,	ΗU,	IE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,
			TR,	BF,	ВJ,	CF,	CĠ,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,
TG																		
		2003																
	EΡ	1572																
		R:										IT,						
												TR,						
		2003																
	CN	1745	067			A		2006	0308		CN 2	003-	8010	9571		2	0031	201
		2006																
PRIC	RIT	APP	LN.	INFO	. :						DE 2	002-	1025	8314		A 2	0021	213

DE 2002-10258314 A 20021213 WO 2003-EP13498 W 20031201

MARPAT 141:54333

L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 07 Dec 2003

ACCESSION NUMBER: 2003:951013 HCAPLUS

DOCUMENT NUMBER: 140:5055

TITLE: Preparation of oxacthingarboxamides as agricultural

INVENTOR(S):

Preparation of oxathiincarboxamides as agricultural fungicides Rieck, Heiko; Dunkel, Ralf; Elbe, Hans-ludwig; Wachendorff-Neumann, Ulrike; Mauler-Machnik, Astrid; Kuck, Karl-Heinz Bayer CropScience AG, Germany PCT Int. Appl., 68 pp. CODEN: PIXXDZ Patent German

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE:

LANGUAGE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

											LICAT						
						-									-		
WO	2003	0998	04		A1		2003	1204		WO	2003-	EP51	03		2	0030	515
	W:	AE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB	, BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		co,	CR,	Cυ,	CZ,	DE,	DK,	DM,	DZ,	EÇ	, EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE	, KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN	, MW,	MX,	MZ,	NI,	NO,	NZ,	OM,
		PH.	PL.	PT,	RO,	RU,	sc,	SD,	SE,	SG	, SK,	SL,	TJ,	TM,	TN,	TR,	TT,
		TZ,	UA,	UG,	US,	UZ,	vc,	VN,	YU,	ZA	, ZM,	ZW					
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	5 Z	, TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG	, сн,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC	, NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ	, GW,	ML,	MR,	NΕ,	SN,	TD,	TG
DE	1022	2886			A1		2003	1211		DE	2002-	1022	2886		2	0020	523
IN	2003	DE00	680		A		2005	0311		IN	2003~	DE 68	0		2	0030	508
ΑU	2003	2327	75		A1		2003	1212		ΑU	2003-	2327	75		2	0030	515
EP	1509	513			A1		2005	0302		EP	2003-	7551	01		2	0030	515
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PŤ,
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL	, TR,	BG,	CZ,	EE,	HU,	sĸ	
BR	2003	0113	85		A		2005	0419		BR	2003-	1138	5		2	0030	515
JР	2005	5364	69		T		2005	1202		JΡ	2004-	5074	61.		2	0030	515
US	2005	2031	71		A1		2005	0915		US	2005-	5150	44		2	0050	512
	7119																
ITY	APP	LN.	INFO	. :						DE	2002-	1022	2886		A 2	0020	523

WO 2003-EP5103

w 20030515

MARPAT 140:5055

OTHER SOURCE(S):

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) CN 1,4-Oxathian-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'- (trifluoromethoxy)[1,1'-biphenyl]-2-yl]- (SCI) (CA INDEX NAME)

627105-80-0 MCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-(methylthio)[1,1'-biphenyl]-2-yi]- (9C1) (CA INDEX NAME)

RN 627105-81-1 HCAPLUS CN 1,4-0xathiin-3-carboxamide, N-(4'-bromo(1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

627105-82-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-{3',4'-dichloro{1,1'-biphenyl}-2-yl}-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Title compds. [I; Rl = F; m = 0-2; R = (substituted) Ph], were prepared Thus, a suspension of KZCO3 in MeCN was dropwise treated with 4'-chloro-2'-fluoro-1,1'-biphenyl-2-amine and 2-methyl-5,6-dihydro-1,4-oxathin-3-carbonyl chloride followed by stirring for 10 h to give 39%

N-(4'-chloro-2'-fluoro-1,1'-biphen-2-yl)-2-methyl-5,6-dihydro-1,4-oxathiin-3-carboxamide. The latter at 100 g/ha gave 100% control of Venturia

3-carboxamide. The latter at 100 g/ha inaequalis.
627105-77-5P 627105-78-6P 627105-79-7P 627105-80-0P 627105-81-1P 627105-82-2P 627105-80-9P 627105-81-1P 627105-88-8P 627105-99-9P 627105-90-9P 627105-90-9P 627105-91-9P 627105-

62/105-98-0F 62/105-99-1F RL: AGR (Agricultural Use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

USES

(preparation of oxathiincarboxamides as agricultural fungicides)
627105-77-5 HCARBUS
1,4-Oxathin-3-carboxamide, N-(4'-chloro-2'-fluoro[1,1'-biphenyl]-2-yl)5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

627105-78-6 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{4'(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

627105-79-7 HCAPLUS

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

627105-83-3 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(4'-chloro-2'-methyl{1,1'-biphenyl}-2-yl)5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

627105-85-5 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-fluoro[1,1'-biphenyl]-2-yl)5,6-dihydro-2-methyl- (9C1) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 627105-86-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3',5'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-87-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-difluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-88-8 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 627105-92-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-(4'-chlore[1,1'-biphenyl]-2-yl)-5,6-dihydro2-methyl- (9CI) (CA INDEX NAME)

RN 627105-93-5 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(2',4'-difluoro[1,1'-biphenyl]-2-yl)-5,6dibydco-2-methyl- (SCI) (CA INDEX NAME)

RN 627105-94-6 HCAPLUS CN 1,4-Oxachiin-3-carboxamide, N-(4'-cyano(1,1'-bipheny1)-2-y1)-5,6-dihydro-2methy1- (9CI) (CA INDEX NAME) L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 627105-89-9 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-90-2 HCAPLUS CN 1.4-Oxathin-3-carboxamide, N-(4'-chloro-3'-methyl{1,1'-biphenyl}-2-yl)-5.6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-91-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro-3-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 627105-95-7 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, N-(3"-fluoro-4"-(trifluoromethyl)[1,1"-biphenyl]-2-yl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-96-8 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-97-9 HCAPLUS

N 1,4-Oxathin-3-carboxamide, N-(2'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-98-0 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-{3',5'-difluoro[1,1'-biphenyl}-2-yl)-5,6-

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN dihydro-2-methyl- (9CI) (CA INDEX NAME) (Continued)

627105-99-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-[3'-chloro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

(Continued)

L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

 $\label{eq:title compds.} \mbox{ [I; R = H, (halo)alkyl, cycloalkyl; Z = H, (halo)alkyl; X, }$

- halo, NO2, cyano, OH, CO2H, cycloalkyl, alkoxycarbonyl, alkoxylmidoslkyl, (halo-substituted) alkyl, alkoxy, alkylthio, alkenyloxy, alkylsulfonyl, alkylsulfinyl, m = 0-3; n = 0-4; A = (substituted) 1H-pyrazol-4-yl, 2- or 3-thiopyranyl, 3-pyridinyl, 3-pyranyl, 1,4-oxathin-3-yl, 2- or 3-thiopyranyl, 3-pyrtolyl, 3- or 2-furanyl, 5- or 4-thiazolyl, 4-isothiazolyl, 5-isoxazolyl, 2-pyrazinyl], were prepared Thus, a mixture of 2-(4-methoxyiminomethylphenyl)bensamine (preparation given) and Ed3N in FhMe was stirred with 2-methyl-4-trifluoromethylthiazole-5-carbonyl chloride at room temperature followed by

stirring for 2 h at 50° to give 74% N-[2-(4-methoxyimidomethylphenyl)-2-methyl-4-trifluoromethylthiazole-5-carboxamide. Several I at 100 ppm gave 77-100% control of Podosphaera leucotricha on apple. 393821-35-7P 393821-47-1P RE: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

S
(Uses)
(preparation of N-biphenylcarboxamides as bactericides)
193821-35-7 KCAPLUS
1,4-Oxathiin-3-carboxamide,
-dihydro-N-[4'-{(methoxyimino)methyl)[1,1'biphenyl)-2-yl]-2-methyl- (9CI) (CA INDEX NAME)

393821-47-1 HCAPLUS

RN 393821-47-1 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[3'-[(methoxyimino)methyl][1,1'-

L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 01 Feb 2002 ACCESSION NUMBER: 2002:90017 HCAPLUS DOCUMENT NUMBER: 116:151158

136:151158
Preparation of N-biphenylcarboxamides as bactericides Elbe, Hans-Ludwig; Rieck, Heiko; Dunkel, Ralf; Wachendorff-Neumann, Ulrike; Mauler-Machnik, Astrid; Ruck, Karl-Heinz; Kugler, Martin; Jaetsch, Thomas Bayer Aktlengesellschaft, Germany PCT Int. Appl., 164 pp. CODEN: PIXXD2
Patent
1 INVENTOR(S):

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

	INFOR															_		
PA	TENT	NO.			KIN		DATE						LON			D.	ATE	
Wo	2002	0081	97		A1		2002	0131		wo	20	01-1	EP79	81		2	0010	711
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		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC	Ξ,	ĔΕ,	ES,	FI,	GB,	GD,	GΕ,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE	Ξ,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN	4, 3	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,
		RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ	J,	TM,	TR,	TT,	ŤZ,	UΑ,	UG,	US,
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		DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	ΙŢ	۲,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
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EP	1305																	
	R:							FR,					LI,	LU,	NL,	SE,	MC,	PT,
								MK,										
BR	2001	0126	76		A		2003	0624		BR	20	01-	1267	6		2	0010	711
HU	2003	0166	1		A2	,	2003	0828		Hυ	20	03-	1661			2	0010	711
J₽	2004	5043	83		T		2004	0212		JΡ	20	02-	5141	03		2	0010	711
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	2003																	
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US	7176	228			B2	!	2007	0213										
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						- 1				DE	20	01-	1012	2447	,	4 2	0010	203

L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN biphenyl]-2-yl]-2-methyl- (9CI) (CA INDEX NAME)

(Continued)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

10544897

L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 31 Oct 2001 ACCESSION NUMBER: 2001:788425 HCAPLUS

2001:788425 HCAPLUS 137:33267

DOCUMENT NUMBER:

13::3226' Synthesis of trifluoromethylated dihydro-1,4-oxathiincarboxanilides and their fungicidal activity Hahn, Hoh-Gyu; Nam, Kee Dal; Kim, Jin-Cheol; Cho, TITLE: AUTHOR (S):

CORPORATE SOURCE:

Kwang Yun
Organic Chemistry Lab, Korea Institute of Science and
Technology, Seoul, 136-791, S. Korea
Han'guk Nonghwa Hakhoechi (2001), 44(3), 191-196
CODEN: JKACA7; ISSN: 0368-2897
Korean Society of Agricultural Chemistry SOURCE:

PUBLISHER:

Biotechnology

DOCUMENT TYPE: LANGUAGE: OTHER SOURCE(S): Journal English CASREACT 137:33267

 α,β -Unsatd. carboxanilides with trifluoromethylated dihydro-1,4-oxathiins (I; n = 0,1; R = H, 4-Me, 2, 3, or 4-OMe, -Cl, or -F, 3 or 4-NO2, 4-Br, 2-CF3, 2-Ph, etc.) were synthesized for the development of new agrochem. fungicide. Chlorination of trifluoromethylated β -keto ester, i.e. CF3COCH2CO2Et, followed by the reaction with 1,2-mercaptoethanol gave intermediate 1,4-oxathiane (II; X

OH). Without purification of II (X = OH), substitution of hydroxy group

chlorine, followed by dehydrochlorination of II (X = Cl) in the presence of tristhylamine afforded trifluoromethylated dihydro-1,4-oxathiin Et ester (III: R1 = Et). Chlorination of the hydroxy group of the

oxylic

acid III (R1 = H) followed by N-acylation of various amines gave the

corresponding trifluoromethylated dihydro-1,4-oxathiin carboxamides I.

Antifungal screening (in vivo) of the synthesized compds. against typical

plant diseases, which include rice blast, rice sheath blight, cucumber

gray mold, tomato late blight, wheat leaf rust, and barley powdery

ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

437714-39-1 HCAPLUS

437714-41-5 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-cyanophenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

437714-47-1 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

437714-48-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) was carried out. Where meta position of the Ph group was substituted

was carried out. Where meta position of the Ph group was substituted

isopropoxy or iso-Pr group, excellent antifungal activities against rice
sheath blight and wheat leaf rust were detected.
20208-82-4P, N-(2-Methylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4oxathin-3-carboxamide 220208-85-7P, N-(2,4,6-Trimethylphenyl)-2trifluoromethyl-5,6-dihydro-1,4-oxathin-3-carboxamide
43714-38-0P, N-(2-Trifluoromethyl-5,6-dihydro-1,4-oxathin-3-carboxamide 43714-39-1P,
N-(2-Phenylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathin-3carboxamide 437714-41-5P, N-(2-Cyanophenyl)-2-trifluoromethyl5,6-dihydro-1,4-oxathin-3-carboxamide 43714-47-1P,
N-(2,5-Dimethylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathin-3-carboxamide
437714-50-6P, N-(3-Chloro-6-methylphenyl)-2trifluoromethyl-5,6-dihydro-1,4-oxathin-3-carboxamide
437714-65-3P, N-(2-Chloro-6-methylphenyl)-2trifluoromethyl-5,6-dihydro-1,4-oxathin-3-carboxamide
437714-65-3P, N-(2-Chloro-6-methylphenyl)-2trifluoromethyl-5,6-dihydro-1,4-oxathin-3-carboxamide
437714-65-3P, N-(2-Chloro-6-methylphenyl)-2trifluoromethyl-5,6-dihydro-1,4-oxathin-3-carboxamide
437714-66-7P, N-(2-Chloro-6-methylphenyl)-2trifluoromethyl-5,6-dihydro-1,4-oxathin-3-carboxamide
437714-66-6P, N-(2-Ethylphenyl)-2-trifluoromethyl-5,6-dihydro-1,4-oxathin-3-carboxamide
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN
(Synthetic preparation); BIOL (Biological study); PREP (Preparation);

(Uses)
(preparation of trifluoromethyldihydro-1,4-oxathiincarboxanilides as agrochem. fungicides)
220288-82-4 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(2-methylphenyl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

220288-85-7 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

437714-38-0 HCAPLUS

L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

437714-50-6 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(5-chloro-2-methylphenyl)-5,6-dihydro-2-(crifluoromethyl)- (9C1) (CA INDEX NAME)

437714-52-8 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-(crifluoromethyl)- (SCI) (CA INDEX NAME)

437714-65-3 HCAPLUS 1,4-Oxathiin-3-carboxamidė, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

437714-68-6 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

10544897

L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

437714-69-7 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-{2-(1-methylethyl)phenyl}-2/rrifluoromethyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

L12 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 21 Jan 2001 ACCESSION NUMBER: 2001:51606 HCAPLUS DOCUMENT NUMBER: 134:280789

Synthesis of 1-methylethyl 2-chloro-5-[[(5,6-dihydro-2-

AUTHOR (5):

o-2methyl-1,4-oxathin-3-yl)carbonyl]amino|benzoate
analogs and their antiviral activity
Xiaoshen, Ji; Yulun, Wang; Huafeng, Zhang; Yan, Gao;
Zhenye, Liu; Jiankang, Wang
Department of Clinical Pharmacology, General Hospital
of Air Force, Beijing, 100036, Peop. Rep. China
Journal of Chinese Pharmaceutical Sciences (2000),
9(4), 179-181
CODEN: JCHSE4; ISSN: 1003-1057
Beijing Medical University, School of Pharmaceutical
Sciences
Journal CORPORATE SOURCE:

SOURCE:

PUBLISHER:

DOCUMENT TYPE:

LANGUAGE:

Journal English CASREACT 134:280789 OTHER SOURCE(S):

1-Methylethyl 2-chloro-5-[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]amino]benzoate [I, UC84] has strong antiviral activity. UC8-was taken as the leading compound, and II analogs were synthesized. All these compds. were evaluated, and some of them showed the obvious

anti-HBV
and anti-HSV activities. The results indicated that the analogs of UC84
might be the potential anti-HSV and anti-HBV drugs.

IT 331809-62-2P
RL: BAC (Biological activity or effector, except adverse); BSU
(Biological

logical study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of 1-methylethyl 2-chloro-5-[(5,6-dihydro-2-methyl-1,4-oxathin-3-yl)carbonyl]amino]benzoate analogs and their antiviral activity) 331809-62-2 HCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methyl-5-nitrophenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 13 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 25 OCC 2000 ACCESSION NUMBER: 2000:750704 HCAPLUS DOCUMENT NUMBER: 134:266254

ACCESSION NUMBER: 2000:750704 HCAPLUS
DOCUMENT NUMBER: 134:266254

AUTHOR(S): Ji, Xiaoshen; Jin, Tao; Miao, Yi; Liu, Yan; Liu,
Zhenye; Zhang, Huasfeng
CORPORATE SOURCE: Department of Clinical Pharmacology, The General
Hospital of Air Force, Beijing, 100036, Peop. Rep.
China
SOURCE: Zhongguo Yaowu Huaxue Zathi (2000), 10(3), 181-183
CODEN: ZYMZEF; ISSN: 1005-0108

PUBLISHER: Zhongguo Yaowu Huaxue Zathi Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: China
AB 1-Methylethyl 2-chloro-5-[5,6-dihydro-2-methyl-1,4-oxathiin-3carboxamido|Denzoate (UC84) and its analogs were prepared Some of the
synthetic compds. showed obvious anti-HSV and anti-HBV activities.

IT 331809-62-2P
RL: SSN (Synthetic preparation); PREP (Preparation)
(preparation and effect of UC84 derivs.)

RN 331809-62-2 RCAPPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methyl-5nitrophenyl)- (9CI) (CA INDEX NAME)

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 10:CLASS 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 18:CLASS 20:CLASS 21:CLASS 24:CLASS

STRUCTURE UPLOADED L9

=> d 19

L9 HAS NO ANSWERS

Ь9 STR

G1 Me, CF2, CF3, X, Cb

G2 H, Me

G3 Cb, Ak

Structure attributes must be viewed using STN Express query preparation.

=> s 19

SAMPLE SEARCH INITIATED 14:52:55 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -72 TO ITERATE

72 ITERATIONS 100.0% PROCESSED

13 ANSWERS

SEARCH TIME: 00.00.01

ONLINE **COMPLETE** FULL FILE PROJECTIONS:

COMPLETE BATCH

PROJECTED ITERATIONS: 931 TO 1949

PROJECTED ANSWERS: 44 TO 476

13 SEA SSS SAM L9 L10

=> s 19 full

FULL SEARCH INITIATED 14:53:02 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1621 TO ITERATE

100.0% PROCESSED 1621 ITERATIONS 395 ANSWERS SEARCH TIME: 00.00.01

10544897

L12 ANSWER 14 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 20 Apr 1999 ACCESSION NUMBER: 1999:241387 HCAPLUS DOCUMENT NUMBER: 130:338072

AUTHOR(S): CORPORATE SOURCE:

130:338072
Formation of bicyclic β -lactams from dichloro-1, 4-oxathiane-3-carboxanilides: nucleophilic substitution of nitrogen on anomeric carbon Hahn, Hoh-Gyu: Chang, Kee-Hyuk Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea Heterocycles (1999), 50(2), 713-719
CODEN: HTCYAN; ISSN: 0385-5414
Japan Institute of Heterocyclic Chemistry
Journal SOURCE:

PUBLISHER

DOCUMENT TYPE: LANGUAGE:

English CASREACT 130:338072 OTHER SOURCE(S):

R SOURCE(S): CAŚREACT 130:338072
Transformation of dichloro-1,4-oxathianecarboxanilides(I)to bicyclic
β-lactams is described. In the presence of sodium hydride, an
intramol, nucleophilic substitution of nitrogen to anomeric carbon of I
gave (IR*,6R*)-l-chloro-6-methyl-7-phenyl-5-oxa-2-thia-7azabicyclo(4,2,0)octam-8-ones. The reason for facile displacement at C-2
is attributable to neighboring group participation of sulfur and C-2 is
anomeric. Plausible mechanisms for the formation of 2-chloromethyl-5,6dihydro-N-phenyl-1,4-oxathiin-3-carboxamide under the neutral conditions,
or 2,3-dihydroxy-2-methyl-N-phenyl-1,4-oxathiane-3-carboxyamide in
ous

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 15 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

220288-89-1 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(2-acetylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

L12 ANSWER 15 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 08 Jan 1999
ACCESSION NUMBER: 1999:11372 HCAPLUS
DOCUMENT NUMBER: 130:153621

DOCUMENT NUMBER: TITLE:

Synthesis of trifluoromethylated dihydro-1,4-oxathiin-

ester AUTHOR(S):

Hahn, Hoh-Gyu; Kee, Hyuk Chang; Kee, Dal Nam; Bae, Su Yeoul; Mah, Heduck Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea Heterocycles (1998), 48(11), 2253-2261 CODEN: HTCYAM; ISSN. 0385-5414 Japan Institute of Heterocyclic Chemistry

3-carboxanilides through polymer-bound activated

CORPORATE SOURCE:

SOURCE:

PUBLISHER:

DOCUMENT TYPE: LANGUAGE:

OTHER SOURCE(S):

Japan Institute of Heterocyclic Chemistry

MEMT TYPE: Journal

BUAGE: English

CR SOURCE(S): CASREACT 130:153621

A synthesis of new trifluoromethylated dihydro-1,4-oxathin-3carboxanilides through polymer-bound activated ester is described.

Chlorination of Et,7,7-trifluorometocacetate followed

by treatment of 2-mercaptoethanol gave hydroxyoxathiane isomers.

Replacement of hydroxy by chlorine and then dehydrochlorination afforded

trifluoromethyl dihydro-1,4-oxathiin-3-carboxylic acid,

4-hydroxy-3-nitrobenzophenone ester was prepared through the reaction of

polystyrene-bound 4-hydroxy-3-nitrobenzophenone with the

trifluoromethylated dihydro-1,4-oxathiin-3-carboxylic acid,

6 this ester with anilines in acetonitrile gave the title

soxanilides.

The reaction rate depended on the nucleophilicity of nitrogen in aniline.

220288-82-4P 220288-85-7P 220288-89-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of trifluoromethyldihydroxathiincarboxanilides from

polymer-bound activated ester)

220288-82-4 HCAPUS

1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(2-methylphenyl)-2
(trifluoromethyl)- (9CI) (CA INDEX NAME)

220288-85-7 HCAPLUS
1,4-0xathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 16 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 04 Nov 1998 : 998:699952 HCAPLUS

1998:699952 HCAPLUS 130:38037 DOCUMENT NUMBER:

130:38037
Anchimeric assistance in the rearrangement of dichloro-3-methyl-1,4-oxathians to 2-chloromethyl dihydro-1,4-oxathians
Hahn, Hôn-Gyu; Choi, Joong-Kwon; Nam, Kee Dal Org. Chem. Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea Bulletin of the Korean Chemical Society (1998), 19(10), 1109-1112
CODEN: BKCSDE; ISSN: 0253-2964
Korean Chemical Society
Journal,
English TITLE:

AUTHOR(S): CORPORATE SOURCE:

SOURCE:

PUBLISHER:

TYPE:

LANGUAGE:

AB Anchimeric assistance of anilide in the rearrangement of dichloro-1,4-oxathianes I (R = OMe, NRPh, NRC6H4COMe-2, NRC6H4COMe-4, NRC6H4NO2-2, NRC6H4NO2-2, NRC6H4NO2-1) to 2-chloromethyl dihydro-1,4-oxathins II is described. The inductive effect of the carbonyl group in I was negligible in the rearrangement. The rate of the rearrangement of I to II depended on the basicity of the anilide nitrogen.

Hydrogen bonding between the anilide hydrogen and ortho-substituents in I (R = NRC6H4COMe-2, NRC6H4OMe-2, NRC6H4OM2-2) decrease the basicity of the anilide nitrogen and the rate of rearrangement of I to II.

IT 216690-65-2P

RI: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of methyldichlorooxathianecarboxylates and carboxamides and

anchimeric assistance in their rearrangement to chloromethyloxathiins) 216690-65-2 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-acetylphenyl)-5,6-dihydro-2-methyl-

(9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 16 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN GI (Continued)

R1C(:X)NHZ1ZR [I; R = (un)substituted (hetero)aryl; R1 = (hetero)aryl; X

RIC(:X)NHZ1ZR [1; R = (un)substituted (hetero)aryl; RI = (hetero)aryl; X
O or S; Z = alk(en)ylene, CO, OCH2, CH2O, CH(OH), etc.; ZI =
(un)substituted 1,2-phenylene] were prepared Thus, 1-methyl-3trifluoromethylpyrazole-4-carbonyl chloride was smidated by 2-(HZN)C6H4OH
and the product etherified by 2,4-MezC6H3CH2Cl to give title compound III.
Data for biol. activity of I were given.
202398-63-69 202398-64-99 202398-65-0P
202399-03-69-202399-06-2P 202399-19P
202399-23-79 202399-31-3P 202399-56-2P
202399-63-1P 202399-30-2P 202399-93-7P
202400-72-4P 202400-73-5P 202400-74-6P
202400-83-7P 202400-85-9P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except
adverse); BSU (Biological study), unclassified); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyrazole-4-carboxanilides and analogs as agrochem.
microbicides and pesticides)
202398-63-8 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

202398-64-9 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-phenylethenyl)phenyl]-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 11 Feb 1998 ACCESSION NUMBER: 1998:79728 HCAPLUS DOCUMENT NUMBER: 128:140699
TITLE: Feb 128:140699
Preparation of pyrarole-4-carbon

Preparation of pyrazole-4-carboxanilides and analogs as agrochemical microbicides and pesticides all pesticides Elbe, Hans-Ludwig, Krueger, Bernd-Wieland; Markert, Robert; Tiemann, Ralf; Kuhnt, Dietmar; Dutzmann, Stefan; Stenzel, Klaus; Erdelen, Christoph; Kugler, Martin; Buschhaus, Hans-Ulrich Bayer A.-G., Germany Ger. offen, 72 pp. CODEN: GWXXBX Patent German 1 INVENTOR(S):

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE:

LANGUAGE: FAMILY ACC. NUM PATENT INFORMAT

FAMILY .	ACC. INFOR	NUM. MATI	COU:	NT:	1													
FAMILY PATENT PA DE	TENT	NO.			KIN	D :	DATE			APP	PLIC	AT:	ION	NO.			DATE	
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P D	9158	6 B			B1		2004	1208					,,,,,				233.0	
	9136 R: 9710 1226 9903 2000 2194 1443	BE.	CH.	DE.	DK.	ES.	FR	GB.	GR.	тт	r. 1	т.	NT.	PT				
R.R.	9710	400	٠,	,	A	,	1999	0817	,	BR	199	7-	1040	ດ້ໍ			19970	711
CN	1226	244			Δ.		1999	0818		CN	199	7-	1967	17			19970	711
ни	9903	691			A2		2000	0428		HU	199	9-	3691	•			19970	711
JP	2000	5169	17		т.		2000	1219		JP	199	8-1	5065	06			19970	711
RU	2194	704			C2		2002	1220		RU	199	9-	1041	B 1			19970	711
EP	1443	045			Al		2004	0804		EP	200	04-	9928				19970	711
	R:	BE.	CH.	DE.	DK.	ES.	FR.	GB.	GR.	IT	r. 1	JI.	NL.	PT				
PT	9158	68			T	,	2005	0531		PT	199	7-	9305	22			19970	711
ES	9158 2232	872			T3		2005	0601		ES	199	7-	9305	22			19970	711
UŞ	6319	940			B1		2001	1120		US	199	99-;	2301	62			19990	120
US	6534	532			B1		2003	0318		US	200	1-1	9557	83			20010	918
US	2003	0782	87		A1		2003	0424		υs	200	2-2	1586	02			20020	530
US	6716	881			B2		2004	0406										
PRIORIT	Y APP	LN.	INFO	. :						DE	199	6-	1962	9828		A	19960	724
										EР	199	7-:	9305	22	٠.	<b>A</b> 3	19970	711
										WO	199	97-1	EP36	94		W	19970	711

OTHER SOURCE(S):

CASREACT 128:140699; MARPAT 128:140699

US 1999-230162

US 2001-955783

A3 19990120

A3 20010918

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

202398-65-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-(2-phenylethenyl)phenyl}-, 4-oxide (9CI) (CA INDEX NAME)

202399-02-8 HCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[[(4-methylphenyl)thio]methyl]phenyl]- (9CI) (CA INDEX NAME)

202399-06-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(phenylthio)methyl]phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 202399-11-9 HCAPLUS
CN 1.4-Oxathiin-3-carboxamide,
N-[2-[(2,4-dimethyl)phenoxy]methyl]phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 202399-23-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-[2-[1(4-chlorophenyl)thio]methyl]phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 202399-31-3 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[2-[(4-chlorophenyl)thio]methyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

202399-88-0 HCAPLUS
1,4-Oxathinn-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-(phenoxymethyl)phenyl}- (9CI) (CA INDEX NAME)

202399-90-4 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-[(3-methylphenoxy)methyl]phenyl}- (9CI) (CA INDEX NAME)

202399-92-6 HCAPLUS
1,4-Oxachiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(4-methylphenoxy)methyl]phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

202399-56-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-n-[2-[(4-methylphenoxy|methyl]phenyl]-2-[trifluoromethyl]- (9CI) (CA INDEX NAME)

202399-63-1 HCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-[2-(phenoxymethyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

202399-80-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-[(2-methylphenoxy)methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

202399-93-7 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-{(2-methylphenoxy)methyl}phenyl}- (9CI) (CA INDEX NAME)

202400-72-4 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[2-[(2-chlorophenoxy)methyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

202400-73-5 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[2-[(3-chlorophenoxy)methyl]phenyl]-5,6-dhydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

202400-74-6 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[2-[(4-chlorophenoxy)methyl]phenyl]-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

202400-83-7 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[[[[1-[3-(trifluoromethyl)phenyl]ethylidene]amino]oxy]methyl]phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 10 Jan 1998 ACCESSION NUMBER: 1998:13933 HCAPLUS DOCUMENT NUMBER: 128:75193

TITLE: Preparation of aminophthalic acid derivatives as

preparation of manipulation and detroctives as Elbe, Hans-Ludwig; Dutzmann, Stefan; Stenzel, Klaus Bayer Aktiengesellschaft, Germany PCT Int. Appl., 110 pp. CODEN: PIXXD2

INVENTOR(S):

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: LANGUAGE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE WO 9747589
W: AU, BB, BG,
NZ, PL, RO,
RW: AT, BE, CH,
SE, BF, BJ,
DE 19623744
AU 9730936
PRIORITY APPLIN. INFO.: Al 19971218 WO 1997-EP2845 19970602
BR, BY, CA, CN, CZ, HU, IL, JP, KR, KZ, LK, MX, NO, RU, SK, TR, UA, US
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
Al 19971218 DE 1996-19623744 19960614
A 19980107 AU 1997-30936 19970602 DE 1996-19623744 A 19960614 WO 1997-EP2845 w 19970602

OTHER SOURCE(S): CASREACT 128:75193; MARPAT 128:75193

Use of title compds. [I; Q1, Q2 = 0, S; R1 = H, RilCO; R2 = RBR9NCO, R100CO, R11CO, R12SO2; R8 = H, alkyl, cycloalkyl, (substituted) aryl, heteroaryl; R9 = H, alkyl; R8R9N = (substituted) heterocyclyl; R10 = (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclyl; R10 = (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkyl, ryl, aralkyl, heterocyclyl; R12 = H, (substituted) heterocyclyl; R13 = H, alkyl, ayl, heterocyclyl; R18 = CR1SR14; R18N = (substituted) heterocyclyl; R13 = H, alkyl, alkenyl, cycloalkyl, (substituted) heterocyclyl; R13 = H, alkyl, alkenyl, cycloalkyl, cycloalkyl, cycloalkyl, expl, heterocyclyl; R14 = H, alkyl, alkenyl, cycloalkyl, cycloalkyl, alkenyl, ayl, heterocyclyl; R14 = H, alkyl, alkenyl, cycloalkyl, cycloalkyl, ayl, heterocyclyl; R14 = H, alkyl, alkenyl, cycloalkyl, cycloalkenyl, ayl, heterocyclyl; R14 = H, alkyl, alkenyl, alkynyloxy, aralkylthio, S1, R4 = OH, alkoxy, alkynyloxy, aralkylthio, SH, arylthio, maino, etc.; R5-R7 = H, halo, cyano, NO2, alkyl, alkoxy, alkylthio, haloalkyl, haloalkoxy, haloalkylthiol for combating pests is claimed. Thus, 3-introphthalic anhydride was heated with Bu9H to give 88.18 3-introphthalic anhydride was heated with Bu9H to give 81.8 13 - 11 SOOTHF was treated with Zn and HCl to give 82.48 3-aminophthalic acid 1-Me ester 2-Bu ester. I at 100 ppm gave 82-98

ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN 202400-85-9 HCAPLUS 1,4-Oxathiin-3-carboxamide, -[{2,4-dimethylyhenoxy)methyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) control of Botrytis cinerea on beans.

IT 200710-35-6P
RL: AGR (Agricultural use): BAC (Biological activity or effector, except adverse): BSU (Biological study, unclassified): SPN (Synthetic preparation): BIOL (Biological study): PREP (Preparation): USES (Uses) (preparation of aminophthalic acid derivs. as pesticides)

RN 200710-35-6 HCAPLUS
CN 1,2-Benzenedicarboxylic acid, 3-{{(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl}carbonyl]amino}-, dimethyl ester (9CI) (CA INDEX NAME)

L12 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 17 May 1995 ACCESSION NUMBER: 1995:556534 HCAPLUS

DOCUMENT NUMBER:

122:305888
Oxathin carboxanilide derivatives: a class of nonnucleoside HTV-1-specific reverse transcriptase inhibitors (NNRTIs) that are active against mutant HIV-1 strains resistant to other NNRTIS Balzarini, J.; Jonckheere, H.; Harrison, W. A.; Dao, D. C.; Anne, J.; De Clercq, E.; Karlsson, A. Rega Institute Medical Research, Leuven, 3000, Belg. Antiviral Chemistry & Chemotherapy (1995), 6(3), 169-78 CODEN. ACCUPU. Years 1997. TITLE:

AUTHOR(S):

CORPORATE SOURCE:

PUBLISHER: DOCUMENT TYPE: LANGUAGE:

169-78
CODEN: ACCHEH; ISSN: 0956-3202
ISHER: Blackwell
MENT TYPE: Journal
UAGE: English
The HIV-1-specific oxathiin carboxanilide derivative 1-methylethyl
2-chloro-5-[[(5,6-dihydro-2-methyl-1,4-oxathiin-3yl)carbonyl]amino]benzene (NSC 615985) (designated UC84) has potent
activity against HIV-1(IIIB) (50% effective concentration: 0.015 µg
).

). UC84 was found to select for a 138-Lys mutant virus strain in HIV-1-infected CEM cell cultures. When the 138-Lys mutation was introduced solely in the p51 subunit of the p51/p66 reverse transcriptase (RT) heterodimer by site-directed mutagenesis, the enzyme proved 10-fold more resistant to UC84 than when the amino acid mutation was introduced solely in the p66 subunit of the p51/p66 RT heterodimer. These data provided clear evidence for a structural and functional role of the p51 subunit in the sensitivity/resistance of the enzyme to UC84. UC64 also proved to be virtually inactive against mutant HIV-1 strains containing

100-Ile, 106-Ala, 138-Lys or 181-Cys mutation in their RT. However,

minor
structural changes in the mol., such as replacement of the oxygen of the
amide moiety by sulfur, or the iso-Pr ester moiety by cyclopentyl or a
sec-Bu, or the Me group of the oxathiin part by Et, made the compound
markedly more inhibitory to one or several HIV-1 mutant strains. For
example, compound 131 (1-methylethyl
2-chloro-5-[[(5,6-dhydro-2-methyl-1,4oxathiin-3-yl)thioxomethyl]amino|benzoate was only 2-fold more active

the parent compound UC84 against wild-type HIV-1, but 30- to 100-fold

inhibitory to HIV-1 mutant strains that contained the 100-Ile, 106-Ala, 138-Lys or 181-Cys in their RT. These findings should be taken into account when selecting suitable drug candidates for the treatment of

HIV-1
infections, particularly those that have developed resistance to other
non-nucleoside RT inhibitors (NNRTIs).
IT 135812-64-5P
RL: BAC (Biological activity or effector, except adverse); BSU
(Biological

ogical study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(oxathiin carboxanilides: HIV-1-specific reverse transcriptase

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 16 Oct 1993 ACCESSION NUMBER: 1993:550132 HCAPLUS DOCUMENT NUMBER: 119:160132

TITLE

119:160132
Annilide derivatives and their use to combat Botrytis Eicken, Karl: Goetz, Norbert: Harreus, Albrecht: Ammermann, Eberhard: Lorenz, Gisela: Rang, Harald BASF A.-G., Germany Eur. Pat. Appl., 60 pp. CODEN: EPXXDW Patent
German 1 INVENTOR(S):

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: LANGUAGE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 545099	A2	19930609	EP 1992-119105	1992110
EP 545099	A3	19931124		
EP 545099	В1	19970305		
R: AT. BE. C	H. DE. DE	. ES. FR.	GB, GR, IE, IT, LI,	NL, PT, SE
CA 2081935	A1	19930523	CA 1992-2081935	1992110
CA 2081935	c	20040525		
IL 103614	Ā	19930523 20040525 19980924 19970315 19970501 19940719 19930831 20010827 19930527 19930527 19930628 19970828	IL 1992-103614	1992110
AT 149487	T	19970315	AT 1992-119105	1992110
ES 2098421	Ť3	19970501	ES 1992-119105	. 1992110
US 5330995	Α .	19940719	ES 1992-119105 US 1992-973976	1992110
JP 05221994	Α .	19930831	JP 1992-303337	1992111
JP 3202079	B2	20010827		
AU 9228554	Δ.	19930527	AU 1992-28554	1992112
AU 656243	B2	19950127		
HU 62861	B2	19930628	<b>КU 1992-3653</b>	1992112
HU 213622	R.	19970828	1332 0000	
ZA 9208977	2	19940519	ZA 1992-8977	1992112
PL 171304	A B1 B6	19970328		1992112 1992112
SK 281730	B6	20010710		1992112
CZ 289478	В6	20020116		1992112 1992112 1994032
US 5480897	3	19960102	US 1994-215463	1994032
US 5556988	A A	19960917	US 1995-472927	1995060
US 5589493	Α.	19961231	US 1995-478681	1995060
JP 2001253802	A .	19961231 20010918 20050608	US 1995-478681 JP 2001-85276	1995060 2001032
JP 3657523	, B2	20050608	0. 2001 002.0	
JP 2001316210	7	20030003	JP 2001-85342	2001032
JP 3660890	B2	20050615		
RITY APPLN. INFO.:		20030013	DE 1991-4138387	A 1991112
			DE 1992-4204764	A 1992021
			DE 1992-4204766	A 1992021
			DE 1992-4204767	A 1992021
			DE 1992-4204768	A 1992021
			US 1992-973976	A3 1992110
			JP 1992-303337	
			US 1994-215463	A3 1994032

L12 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

inhibition and prepn.) Report 135812-64-5 HCAPLUS

N Benzoic acid,
3-[([5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]amino]4-methyl-, propyl ester (9CI) (CA INDEX NAME)

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

The use of the title compds. I (A = heteroaryl; R = haloalkyl, halo, alkanyl, alkoxy, etc.) for the inhibition of Botrytis is claimed. Treatment of N-propylanline with 2-chloronicotinoyl chloride gave N-(2-chlorophenyl)-3-pyridinamide (II). II had fungicidal activity against Botrytis cinerea.
149708-39-4P 149708-40-7P 149708-42-9P 149708-43-0P 149708-3-72-5P 149708-47-P 149708-71-4P 149708-72-5P 149708-77-0P RL: AGR (Agricultural use): BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified): SPN (Synthetic preparation); BIOL (Biological study): PREP (Preparation); USES (Uses) (preparation of, as agrochem. fungicide)
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-methylpropyl)phenyl]- (9CI) (CA INDEX NAME) AB

IT

149708-40-7 HCAPLUS
1,4-0xathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-methylpropyl)phenyl]- (9CI) (CA INDEX NAME)

149708-42-9 HCAPLUS 1,4-0xathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-methyl-(9C1) (CA INDEX NAME)

OTHER SOURCE(S):

MARPAT 119:160132

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

149708-43-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

$$\mathbb{R}$$

RN 149708-44-1 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-[2-(2-cyclopenten-1-y1)phenyl]-5,6-dihydro-2methyl (9C1) (CA INDEX NAME)

RN 149708-45-2 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-[2-(2-cyclohexen-1-yl)phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

149708-75-8 HCAPLUS
1,4-Owathin-3-cárboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxde (9CI) (CA INDEX NAME)

149708-76-9 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-(1-methylpropyl)phenyl}-, 4-oxide (9CI) (CA INDEX NAME)

149708-77-0 HCAPLUS
1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-methylpropyl)phenyl]-, 4-oxide (9CI) (CA INDEX NAME)

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

149708-71-4 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-methylpropyl)phenyl]-, 4,4-dioxide (9CI) (CA INDEX NAME)

149708-72-5 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-(2-methylpropyl)phenyl}-, 4,4-dioxide (9CI) (CA INDEX NAME)

RN 149708-74-7 HCAPLUS
CN 1.4-Oxethiin-3-carboxamide,
N-(2-cyclopentylphenyl)-5,6-dihydro-2-methyl-,
4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 23 Sep 1991
ACCESSION NUMBER: 1991:514520 HCAPLUS DOCUMENT NUMBER: 115:114520
TITLE: Treatment of HIV infections and

Treatment of HIV infections and compounds useful

INVENTOR (S):

therein Harrison, William A.; Jewell, Gary E.; Felauer, Ethel E.; Dekeyser, Mark A.; Cong. Dong D.; McGuiness,

James A.: Mishra, Anupama: Brouwer, Walter G.: McPhee,

Derek

PATENT ASSIGNEE(S): Uniroyal Chemical Ltd., Can.; Uniroyal Chemical Co.,

Inc. PCT Int. Appl., 187 pp. CODEN: PIXXD2 SOURCE:

Patent English

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

		····					
PA?	TENT NO.			KIND	DATE	APPLICATION NO.	DATE
WO	9105761			A1	19910502	WO 1990~US5760	19901009
						NO, SU	
	RW: AT,	BE,	CH,	DE,	DK, ES, FR,	GB, GR, IT, LU, NL, SE	
US	5268389			A	19931207	US 1990-588208	19900926
CA	2067381			A1	19910417	US 1990-588208 CA 1990-2067381	19901009
CA	2067381			С	20040406		
AU	9066035			A	19910516	AU 1990-66035	19901009
AU	636409			B2	19930429		
ZA	9008094			A	19910828	ZA 1990-8094 BR 1990-7758	19901009
BR	9007758			Α	19920811	BR 1990-7758	19901009
EP	497816			A1	19920812	EP 1990-915588	19901009
					19950517		
	R: AT,	BE,	CH,	DE,	DK, ES, FR,	GB, GR, IT, LI, LU, NL,	SE
HU	60713			A2	19921028	HU 1992-1258	19901009
HU	220759			В1	20020528		
JP	04507422			T	19921224	JP 1990-514569	19901009
JP	06102641			В	19941214		
RU	2108785			C1	19980420	RU 1990-5011885	19901009
IL	95956			A	19960331	IL 1990-95956	19901010
CN	1051036			A	19910501	CN 1990-108426	19901016
US	5693827			А	19971202	GB, GR, IT, LI, LU, NI, HU 1992-1258 JP 1990-514569 RU 1990-5011885 IL 1990-95956 CN 1990-108426 US 1995-485291 US 1989-421155	19950607
PRIORITY	Y APPLN.	INFO.	:			US 1989-421155	19891016
						US 1990-567982 A	19900815
						US 1990-588208 A	19900926
						WO 1990-US5760 A	19901009
						US 1993-98978 E	2 10020728
						02 1332-30370	3 19930726

MARPAT 115:114520 OTHER SOURCE(S):

L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 135812-64-5 HCAPLUS
CN Benzoic acid,
3-[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]amino}4-methyl-, propyl ester (9CI) (CA INDEX NAME)

135813-23-9 HCAPLUS
Benzoic acid, 2-chloro-5-[[2-[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-

L12 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1982:217860 HCAPLUS
DOCUMENT NUMBER: 5,6-Dihydro-2-methyl-N-phenyl-1,4-oxathiin-3-carboxamide
INVENTOR(S): Carboxamide
ENTERED ASSIGNEE(S): Carboxamide
Univoyal Ltd., Can.
COODEN: CAXXA4
DOCUMENT TYPE: COODEN: CAXXA4
DATENT INFORMATION: English
FAMILY ACC. NUM. COUNT: English

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 1118429	A2	19820216	CA 1981-371748	19810225
CA 1109073	Al	19810915	CA 1978-310606	19780905
HU 24629	A2	19830328	HU 1979-UI283 IL 1979-58177	19790904
HU 182614	В	19840228		
IL 58177	A	19840831	IL 1979-58177	19790904
DK 7903709	A	19800306	DK 1979-3709	19790905
DK 154767	В	19881219	DK 1979-3709	
DK 154767	¢	19890605		
AU 7950603	A	19800417	AU 1979-50603	19790905
AU 526670	B2	19830127		
EP 10843	A1	19800514	EP 1979-301827	19790905
EP 10843	B1	19831109		
R: DE, FR, GB	, IT, NL			
ZA 7904694	A	19800827	ZA 1979-4694 DD 1979-215367	19790905
DD 146599	A5	19810218	DD 1979-215367	19790905
EP 42182	A2	19811223	EP 1981-106224	19790905
EP 42182	A3	19811230		
R: DE, FR, GB	, IT, NL			
CS 215123	B2	19820730	CS 1979-6017	19790905
CS 215124	B2	19820730	CS 1979-6017 CS 1981-458	19790905
PL 124628	B1	19830228	PL 1979-218135	19790905
SU 1029828	A3	19830715	SU 1979-2806608	19790905
JP 56099469	A	19810810	JP 1980-167336	19801127
JP 56099470	A	19810810	JP 1980-167337	19801127
RIORITY APPLN. INFO.:			JP 1980-167336 JP 1980-167337 CA 1978-310606	3 19780905
			CA 1979-334458	19790827
			ED 1979-301827 I	19790905

OTHER SOURCE(S):

CASREACT 96:217860

<me CH2CONH₽h

AB — The title compound was prepared in 63% overall yield by treating  ${\tt Mecoch2conhPh}$ with HSCH2CH2CH2OH to give I (n = 0) which oxidized with H2O2 and PhMe in L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) yl|carbonyl|amino|benzoyl|amino|-, 1-methylethyl ester {9CI} (CA INDEX NAME)

L12 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
the presence of Na2W04, followed by ring enlargement of I (n = 1) with
BU4N*Br.

1 6577-30-6
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 6577-30-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)(9CI)

(9CI)

(CA INDEX NAME)

L12 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1980:141624 HCAPLUS DOCUMENT NUMBER: 92:141624

TITLE:

AUTHOR (S) : CORPORATE SOURCE:

92:141624
A molecular receptor model for carboxin
Schewe, T.; Mueller, W.; Lyr, H.; Zanke, D.
Inst. Physiol. Biol. Chen., Humboldt-Univ. Berlin,
Berlin, Ger. Dem. Rep.
Abhandlungen der Akademie der Wissenschaften der DDR,
Abteilung Mathematik, Naturwissenschaften, Technik
(1979), (2N, Vortr. Int. Sym p.: Systemfungiz., 5th,
1977), 241-51
CODEN: AAWTD2; ISSN: 0138-1059 SOURCE:

DOCUMENT TYPE: LANGUAGE: GI

AB Data are given on the in vitro effect of 24 carboxin [5234-68-4] derivs.
and analogs I (R = H, tert-Bu, cyclopentyl, cyclohexyl, Ph, substituted
Ph, a-naphthyl, etc) and R'CONRPH (R' = 2-methyl-1,4-oxanthin-3-yl,
o-tolyl, o-hydroxyphenyl, 2-methyl-1,4-oxanthin-3-yl dioxide, etc) on
succinate cytochrome c reductase [9028-10-9] from cattle heart
mitochondrial nonphosphorylating electron-transport particles (Mueller,
W., et al., 1977). The succinate dehydrogenase subunit high-potential
Fe-S protein (Fe S-center S3) seems to be the specific receptor, and the
interaction seems to involve the hydrophobic group at the amide-N, the
2-cis-Me of the oxathiin cycle, and the vinylogous CO group. A model is
given, by which the electrophilic C of the a-B-unsatd. CO group
is bound to the cysteine-S of the Fe-S cluster, whereas the N and O are
bound coordinatively to 2 different Fe atoms of the cluster.

IT 6577-30-6 6577-34-0
RL: PROC (Process)
(binding of, to succinate dehydrogenase high-potential iron-sulfur
protein, mol. receptor model in relation to)

RN 6577-30-6 RAPPLUS
CN 1,4-Oxathiin-3-carboxamide, S,6-dihydro-2-methyl-N-{2-methylphenyl}(SCI)
(CA INDEX NAME)

(CA INDEX NAME)

L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1980:71049 HCAPLUS DOCUMENT NUMBER: 92:71049 HCAPLUS FUNGLIGIAL and because the fundlicidal and be

92:71049
Fungicidal and bactericidal composition
Von Schmeling, Bogislav; Kulka, Marshall; Thiara,
Dalel Singh; Harrison, William Ashley
Uniroyal, Inc., USA; Uniroyal Ltd.
Roma, 15 pp.
CODEN: RUXXA3
Patent
Romanian
1 INVENTOR (S):

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: LANGUAGE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE RO 61104 A2 19771010

19710911 19710911 RO 1971-68189 RO 1971-68189 PRIORITY APPLN. INFO.:

G.T

AB The oxathiin derivs. I (R = alkyl, cycloalkyl, aralkyl, or aryl; Rl = H, alkyl, or substituted alkyl; n = 1 or 2) are systemic bactericides and fungicides. Thus, soil application of 5 ppm

2,3-dihydro-5-carboxanilido-6nethyl-1,4-oxathiin 4,4-dioxide [5259-88-1] at sowing controlled bean rust caused by artificial Rhizoctonia solani infestation. The synthesis of I is given.

171757-73-2P 17757-76-5P 17757-78-7P
17757-79-8P 17757-98-1P 17757-93-6P
17757-94-7P 17757-98-1P 17755-93-1P
17758-05-3P 17762-58-2P 17762-75-3P
17762-76-4P 17946-62-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(Preparation and bactericidal and fungicidal activity of)

RN 17757-73-2 HCAPLUS

NAME)

L12 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

6577-34-0 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(SCI) (CA INDEX NAME)

(Continued)

L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17757-76-5 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9CI) (CA INDEX NAME)

17757-78-7 HCAPLUS

1,4-Oxathiin-3-carboxamide; N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9CI) (CA INDEX NAME)

17757-79-8 HCAPLUS

1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-,4-oxide (9CI) (CA INDEX NAME)

17757-91-4 HCAPLUS

1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-,4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17757-93-6 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

17757-94-7 HCAPLUS

1/15/-54-/ HCAPEGS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17757-98-1 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17758-04-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17946-62-2 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2-(aminocarbonyl)phenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

IT 13582-78-09

RE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and oxidation of) 13582-78-0 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17758-05-3 HCAPLUS

1/130-03-3 nearBust | 1.4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

17762-58-2 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17762-75-3 HCAPLUS

1,4-Oxathiin-3-carboxamide; 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17762-76-4 | BCAPLUS 
1,4-Oxathiin-3-carboxamide; N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1979:54799 HCAPLUS DOCUMENT NUMBER: 90:54799

yu:54799
Heterocyclic carboxylic acid anilides
Hubele, Adolf
Ciba-Geigy A.-G., Switz.
Patentschrift (Switz.), 17 pp.
CODEN: SWXXAS
Patent
German DOCUMENT NUMBER:

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE:

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

APPLICATION NO. DATE PATENT NO. KIND DATE CH 606029 PRIORITY APPLN. INFO.: A5 .19781013

The anilides I [R = C1-4 alkyl or alkoxy, halogen; R1 = R2 = H, C1-3 alkyl, halogen; R3 = H, Mer Z = CHZ, CHMer; R4 = (esterified) CO2H, (substituted) CONH2; R5 = (Mer or halogen-substituted) 5- or 6-membered heterocycle with 1 or 2 hetero atoms] were prepared for use as

phytopathol.

phytopathol.

fungicides (no data). Thus, 2,6-Me2C6H5NH2 reacted with 2-furoyl chloride, and the product was treated with BrCHMeCO2Me to give I (R = Me, RI = R2 = H, RI = 6-Me, ZR4 = CHMeCO2Me, R5 = 2-furyl).

IT \$8185-00-59 F8185-15-2P \$8185-0-59 F8185-02-7P \$8185-04-9P \$8185-15-2P RL: \$9N (Synthetic preparation); PREP (Preparation) (preparation of)

RN \$8185-00-5 HCAPLUS
CN Alanine, N-(2-chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

58185-01-6 HCAPLUS

58183-U1-6 ROAFEGS Alanine, -chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

58185-02-7 HCAPLUS Glycine, N=[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)

RN 58185-04-9 HCAPLUS CN Glycine, N-[[[5,6-dihydro-2-methyl-1,4-oxathiin-3-yl]carbonyl]-N-(2-ethyl-6-

L12 ANSWER 26 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1979:17500 HCAPLUS

DOCUMENT NUMBER:

TITLE:

90:17500
Oxathin carboxamides highly active against
carboxin-resistant succinic dehydrogenase complexes
from carboxin-selected mutants of Ustilago maydis and
Aspergillus nidulans
White, G. A.; Thorn, G. D.; Georgopoulos, S. G.
Res. Inst., Agric. Canada, London, ON, Can.
Pesticide Biochemistry and Physiology (1978), 9(2),
165-82
CODEN. RESERVE CONT.

AUTHOR(S): CORPORATE SOURCE:

SOURCE:

CODEN: PCBPBS; ISSN: 0048-3575

DOCUMENT TYPE:

with

Succinate dehydrogenase [9002-02-2] complex (SDC) of certain oxathiin carboxamides were selectively active against a particular mutated U. maydis and A. nidulans. Mol. structures affecting the phenotypic expression of mutation to carboxin [I] [5234-68-4] resistance in U. maydis did not appear to affect similarly such expression in A. nidulans and vice versa. Of particular interest was the discovery of oxathiin carboxamides, e.g., 4'-phenylcarboxin [13582-42-8], which were more inhibitory to the enzyme complex from one category of I-resistant mutants of U. maydis than from the wild-type strain. Although such meg. correlation between I and other I analogs was not observed in studies

other categories of mutants, structures which drastically lower the resistance level were found in all cases. It appears that for any given mutation affecting I sensitivity of the SDC in fungi, a specific structural group of carboxamides (or even a specific carboxamide) may be found which will alleviate or reverse the effect of the mutation in terms of inhibition of the SDC. If the mutations alter a protein receptor site for carboxamides, such mutations might be expected to influence the binding of Is of different attructure. In essence, then, different molstructures can recognize different alterations in the mutated enzyme complex and inhibit effectively. With a few exceptions, the inhibition

carboxamides of cell growth of wild-type and I-resistant strains of U. maydis and A. nidulans closely paralleled the inhibition of their resp. SDCs. Although the few analogs tested were found unable to control corn smut systemically in seedlings artificially inoculated with compatible I-resistant strains, control of naturally occurring I-resistant strains

pathogenic fungi may be possible using particular structural analogs of I which selectively inhibit the mutant organisms. which selection 6577-34-0P

IT

6577-34-0P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, and inhibition of succinic dehydrogenase from

Aspergillus and Ustilago resistant to carboxin) RN 6577-34-0 HCAPLUS

L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN methylphenyl)-, methyl ester (9CI) (CA INDEX NAME) (Continued)

58185-15-2 HCAPLUS
Alanine, N-((5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2,6-dimethylphenyl)-, methyl ester (9C1) (CA INDEX NAME)

L12 ANSWER 26 OF 51 HCAPLUS, COPYRIGHT 2007 ACS on STN (Continued)
CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

hydrophobi 6577-34-0

action in relation to) 6577-34-0 HCAPLUS

ΙT

L12 ANSWER 27 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1978:70338 HCAPLUS
DOCUMENT NUMBER: 88:70338
TITLE: Detoxification of Garboxins
AUTHOR(S): Lyr. Horas: Ritter, G.; Polter, C.
CORPORATE SOURCE: Lyr. Horas: Ritter, G.; Polter, C.
Edm. Rep.
SOURCE: Source: Dem. Rep.
Systemistry. Int. Symp. (1975). Meeting Date 1974. Dem. Rep. Systemfungiz., Int. Symp. (1975), Meeting Date 1974, 167-76. Editor(s): Lyr. Horst: Polter, C. Akad.-Verlag: Berlin, E. Ger. CODEN: 37FLAE SOURCE: Conference DOCUMENT TYPE: LANGUAGE: Carboxin (I, R = Ph) [5234-68-4] was oxidized by Ustilago zeae to carboxin sulfoxide [17757-70-9], especially in light. Some oxidation Carboxin sulfoxide [17757-70-9], especially in light. Some oxidation shown by Trametes versicolor and Aspergillus niger mitochondria. I (R = Ph) was also oxidized by riboflavin [83-88-5] in light. Cleavage of various I derivs. by barley aryl acyl amidase [9025-18-7] at pH 7.5, dependent on the substituent R, and was in the increasing order R = Ph, m-Mec6H4, o-ClC6H4, p-ClC6H4, p-ClC6H4, p-ClXC6H4, p-ClXC6H4, a-naphthyl, and o-Mec6H4. Barley aryl acyl amidase was characterized using o-chloropropionanilide [2760-32-9] as a substrate. 6577-30-6 6577-34-0 (Reactant); RACT (Reactant or reagent) (hydrolysis of, by aryl acryl amidase, carboxin stability in relation to) 6577-30-6 RCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-I) RN CN (9CI) (CA INDEX NAME) 6577-34-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-{1,1'-biphenyl}-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME) L12 ANSWER 28 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1978:70337 HCAPLUS DOCUMENT NUMBER: 88:70337 The problem of selectivity as well as structure-receptor relationship of carboxin and its analogs analogs Lyr, Horst; Schewe, T.; Mueller, W.; Zanke, D. Inst. Pflanzenschutzforsch., DAW, Kleinmachnow, Ger. AUTHOR (S): CORPORATE SOURCE: Inst. Prienzenschutzzorsch., DAW, Kleinmachnow, Ger. Dem. Rep.
Systemfungiz., Int. Symp. (1975), Meeting Date 1974, 153-66. Editor(s): Lyr, Horst: Polter, C. Akad.-Verlag: Berlin, E. Ger. CODEN: 37FLAE SOURCE: DOCUMENT TYPE: Conference LANGUAGE: CONHPh Evidence is presented, together with literature data, in support of a Evidence is presented, together with literature data, in support of a of attack for carboxin (I) [5234-68-4] at the complex II-associated Fe-S-protein (FeSPP) (Schewe, T., et al, 1973), situated after succinate dehydrogenase in the respiratory chain. I inhibits the electron transfer from the reduced FeSPPto ubiquinone and cytochromes b. I is an inhibitor of both the main and alternate respiratory pathway. Rhodotorula mucilaginosa was used to obtain data on respiration inhibition by I together with that by antimycin A, TTFA (2-theonyltrifluoroacetone) and 8-hydroxyquinoline. Inhibition of the succinic dehydrogenase activity in mitochondria and ETP (electron transport particles) from the I-sensitive Trametes versicolor and I-resistant Trichodesma viride were tested for I and I derivs. Effects on succinate cytochrome c reductase and NADH oxidase of cattle heart ETP were also tested. The activity of the I derivs on the cattle heart and T. versicolor ETP showed moderate correlation to the hydrophobicity parameter (octanol-N2O partition) of same derivs. No such correlation was shown for T. viride. Selectivity I activity is probably due primarily to receptor affinity rather than hydrophobicity. Structure-receptor interactions are discussed.

RL: BIOL (Biological study)
(biol. electron transfer systems response to, fungicidal mechanism of

mcAPLUS 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(SCI) (CA INDEX NAME)

L12 ANSWER 27 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

L12 ANSWER 28 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 29 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1978:59279 HCAPLUS

DOCUMENT NUMBER: 88:59279

TITLE:

The inhibition of chitin synthesis in vivo AUTHOR (S):

CORPORATE SOURCE:

The inhibition of Chitin Symmetry, Ritter, G.
Inst. Forstwiss., Eberswalde, Ger. Dem. Rep.
Systemfungiz., Int. Symp. (1975), Meeting Date 1974,
203-8. Editor(s): Lyr, Horst; Polter, C.
Akad.-Verlag: Berlin, E. Ger.
CODEN: 37FLAE
Conference
German SOURCE:

DOCUMENT TYPE:

DOCUMENT TYPE: Conference
LANGUAGE: German

AB Of 20 fungicides tested, Nystatin [1400-61-9] and aureofungin
[8065-41-6] showed the highest inhibition of chitin [1398-61-4]
biosynthesis in Rhodotorula rubra, in vivo. Aureofungin at 10-7M
inhibited chitin biosynthesis by 50%, but caused only slight inhibition

glucosamine-3H uptake, by R. rubra. This, together with earlier

ΙT

ings, suggests a mechanism which does not involve strong membrane destruction. 6577-34-0 RL: BIOL (Biological study) (chitin formation inhibition by, in Rhodotorula rubra) 6577-34-0 HCAPIUS 1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

L12 ANSWER 30 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

ΙT

6577-30-6
RL: BIOL (Biological study)
(respiratory enzymes inhibition by, in cattle heart mitochondrial
particles, receptors in fungi in relation to)
6577-30-6 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI)

(CA INDEX NAME)

L12 ANSWER 30 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1978:32999 HCAPLUS

DOCUMENT NUMBER: 88:32999

TITLE:

89:32399 BEffective mechanisms of respiratory inhibition by the fungicides of the carboxin group. Effect of oxathin derivatives and analogs on nonphosphorylating submitochondrial particles from beef heart Mueller, W.; Schewe, T.; Lyr, H.; Zanke, D. Inst. physiol. Biol. Chem., Humboldt-Univ., Berlin, Ger. Dem. Rep. 2015. Chem. Humboldt-Univ., Berlin, 17(5), 359-72 CODEN: ZAPOAK; ISSN: 0044-2208 Journal German

CORPORATE SOURCE:

SOURCE:

DOCUMENT TYPE:

AUTHOR(S):

The inhibitory activity of carboxin (I, R = Ph)  $\{5234-68-4\}$  and of 22 derivs, and analogs, such as I (R = H, cycloalkyl,  $\alpha$ -naphthyl, substituted Ph, etc.) was tested on the succinate-cytochrome c reductase  $\{9028-10-8\}$  and NADH oxidase  $\{9032-21-7\}$  of nonphosphorylating electron-transport particles  $\{ETP\}$  from cattle-heart mitochondria. Some

were also tested on particulate succinic dehydrogenase [9002-02-2] of

were also tested on particulate succinic dehydrogenase [9002-02-2] of carboxin-sensitive Trametes versicolor and carboxin-resistant Trichoderma viride. The inhibitory activity of I on ETP cytochrome c oxidoreductase correlated well with that on succinic dehydrogenase of Trametes versicolor, but not with that on succinic dehydrogenase of Trametes viride. Thus, cattle-heart ETP is a suitable model for carboxin receptors. Low correlation was shown between the activity of I on cytochrome c oxidoreductase and the hydrophobicity parameter 1g P of I (P is the octanol to water distribution coefficient). Electronic and steric effects were also evident. A multicenter mechanism is suggested for the receptor-binding of I. Mechanism of resistance to I is discussed. 6577-34-0
RL: BIOL (Biological study)
(respiratiory enzymes inhibition by, in cattle heart mitochondrial particles, receptors in fungi in relation to)
6577-34-0 HCAPLUS
1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

L12 ANSWER 31 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1984; ACCESSION NUMBER: 1976:164796 HCAPLUS DOCUMENT NUMBER: 84:164796

DOCUMENT NUMBER: TITLE:

84:164796
M-Substituted amides of 2,3-dihydro-6-methyl-1,4oxathiin-5-carboxylic acid
Eckstein, Zygmunt: Ejmocki, Zdzislaw; Fulde, Stefan;
Kwiatkowski, Marian; Sawicki, Konrad; Tippe, Andrzej
Poltechnika Warszawska, Pol.

INVENTOR(S):

PATENT ASSIGNEE(S): SOURCE:

Pol., 4 pp. CODEN: POXXA7

Patent Polish

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE PL 76496 PRIORITY APPLN. INFO.: A5 19750228

GΙ

Fungicidal 1,4-oxathiins (I, R = Ph, 2-BrC6H4, 2,4-F2C6H3, 2-PhC6H4, o-MeoC6H4) were prepared Thus, 2,3-dihydro-6-methyl-1,4-oxathiin-5-carboxylic acid in Me2C0-dioxane was treated with NMe3 at -10 and then with Eto2CCl and PhNH2 at -10 to -5 to give I (R =

Ph).
6577-34-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
6577-34-0 RCAPLUS
1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl(SCI) (CA INDEX NAME)

L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1976:58964 HCAPLUS

DOCUMENT NUMBER: 64:58964
Microbiocidal and plant growth regulating anilines

INVENTOR(S): Hubele, Adolf
PATENT ASSIGNEE(S): Ger. Offen., 46 pp.

COOM: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: GERMA LANGUAGE: German 2 FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2513732	A1	19751016	DE 1975-2513732	19750327
DE 2513732	C2	19880414		
CH 590608	A5	19770815	CH 1974-4572	19740402
CH 603041	A5	19780815	CH 1975-1591	19750210
DK 7501358	A	19751003	DK 1975-1358	19750326
DK 141168	В	19800128		
DK 141168	С	19800714		
DK 7501359	A	19751003	DK 1975-1359	19750326
DK 141995	В	19800804		
DK 141995	С	19801215		
FI 7500920	A	19751003	FI 1975-920	19750326
FI 63567	В	19830331		
FI 63567	C	19830711		
FI 7500921	A	19751003	FI 1975-921	19750326
NO 7501084	A	19751003	NO 1975-1084	19750326
NO 141340	В	19791112		
NO 141340	С	19800220		
NO 7501086	A	19751003	NO 1975-1086	19750326
NO 142714	В	19800623		
NO 142714	С	19801001		
SE 7503517	A	19751003	SE 1975-3517	19750326
SE 419218	В	19810720		
SE 419218	С	19811029		
SE 7503518	A	19751003	SE 1975-3518	19750326
SE 418086	В	19810504		
SE 418086	С	19810813		
FR 2265747	Al	19751024	FR 1975-9484	19750326
FR 2265748	Al	19751024	FR 1975-9485	19750326
NL 7503754	A	19751006	NL 1975-3754	19750327
NL 160821	В	19790716		
NL 7503755	A	19751006	NL 1975-3755	19750327
AU 7579640	A	19751009	AU 1975-79640	19750327
AU 7579641	A	19760930	AU 1975-79641	19750327
CA 1050558	A1	19790313	CA 1975-223222	19750327
CA 1050546	A1	19790313	CA 1975-223227	19750327
DE 2560591	C2	19890608	DE 1975-2560591	19750327
BE 827419	A1	19751001	BE 1975-154971	19750401
BE 827420	A1	19751001	BE 1975-154972	19750401
ZA 7501996	A	19760225	ZA 1975-1996	19750401
ZA 7501997	A	19760225	ZA 1975-1997	19750401
DD 118510	A5	19760312	DD 1975-185144	19750401

ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
2,3,6-Me2RtC6H2N(COR1)CHMeCOZMe (RI = 2-furyl). About 115 I were prepd.
and tested on various funqi and plants.
59185-00-5P 59185-01-6P 58185-02-7P
58185-04-9P 58185-15-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
58185-00-5 HCAPLUS
Alanine,
2-chloro-6-methylphenyl)-N-{(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl}-, ethyl ester (SCI) (CA INDEX NAME)

58185-02-7 HCAPLUS
Glycine, N-{(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl}carbonyl}-N-{2,6-dimethylphenyl}-, methyl ester (9CI) (CA INDEX NAME)

L12	ANSWER 32 OF 51	HCAPLUS		2007 ACS on STN	(Continued)
	DD 118785	A5	19760320	DD 1975-185147	19750401
	GB 1448810	A	19760908	GB 1975-13332	19750401
	DD 124733	A5	19770309	DD 1975-192060	19750401
	ES 436174	A1	19770416	ES 1975-436174	19750401
	ES 436175	A1	19770416	ES 1975-436175	19750401
	IL 46988	А	19771230	IL 1975-46988	19750401
	AT 7502446	A	19780115	AT 1975-2446	19750401
	AT 345614	В	19780925		
	GB 1498199	А	19780118	GB 1975-13349	19750401
	AT 343407	В	19780526	AT 1975-2448	19750401
	IL 46989	А	19780615	IL 1975-46989	19750401
	HU 172935	В	, 19790128	HU 1975-CI1563	19750401
	HU 173317	В	, 19790428	HU 1975-CI1564	19750401
	RO 73181	A1	19821011	RO 1975-81867	19750401
	JP 50135225	A	19751027	JP 1975-40226	19750402
	JP 53045364	В	19781206		
	JP 50135226	A	19751027	JP 1975-40227	19750402
	JP 60042202	В	19850920		
	PL 97786	B1	19780330	PL 1975-179266	19750402
	PL 98627	B1	19780531	PL 1975-179265	19750402
	CS 183788	B2	19780731	CS 1975-2239	19750402
	CS 183789	B2	19780731	CS 1975-2240	19750402
	SU 682096	A3	19790825	SU 1975-2120455	19750402
	SU 743561	A3	19800625	SU 1975-2121601	19750402
	RO 79677	A1	19820817	RO 1975-81876	19750402
	RO 84021	A1	19840512	RO 1975-106426	19750402
	SU 628812	A3	19781015	SU 1975-2186207	19751105
	SU 626690	A3	19780930	5U 1976-2342705	19760405
	US 4046911	A	19770906	US 1976~703037	19760706
	US 4094990	A	19780613	US 1976-709066	19760727
	CH 598265	A5	19780428	CH 1977-4805	19770419
	AT 7707656	A	19800115	AT 1977-7656	19771027
	AT 358025	В	19800811		
	AT 7707893	A	19790815	AT 1977-7893	19771104
	AT 355561	В	19800310		
	JP 53135964	A	19781128	JP 1978-2327	19780112
	JP 57040829	В	19820830		
	JP \$3135965	A	19781128	JP 1978-2328	19780112
	JP 58045433	В	19831008		
PRIOF	ITY APPLN. INFO.	:		CH 1974-4572	A 19740402
				CH 1975-1591	A 19750210
				US 1975-563035	A2 19750328
				US 1975-563036	Al 19750328
				AT 1975-2446	
				AT 19/5-2446	A 19750401
				AT 1975-2448	A 19750401
				MI 19/3-2440	W 13/20401

RnC6H5-nN(COR1)CHR2COR3 (I; R = Me, MeO, Cl, Et, BuO, etc; n = 1-4; Rl = furyl, thienyl, pyrimidinyl etc.; R2 = H, Me; R3 = MeO, Eto, Me2N, etc.), useful as fungicides and plant growth regulators, were prepared Thus, 2,3,6-Me2Etc6H2NH2 reacted with BrCHMeCO2Me to give 2,3,6-Me2EtC6H2NHCHMeCO2Me, which reacted with 2-furancarbonyl chloride to give

L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 58185-04-9 KCAPLUS
CN Glycine,
N-{(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl}-N-{2-ethyl-6-methylphenyl}-, methyl ester {9CI} (CA INDEX NAME)

58185-15-2 RCAPLUS
Alanine, N-{(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl}carbonyl]-N-{2,6-dimethylphenyl}-, methyl ester (9CI) (CA INDEX NAME)

L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1975:573722 HCAPLUS DOCUMENT NUMBER: 83:173722

TITLE:

Structure-activity relations of carboxamide

fungicides Cryptococcus

and the succinic dehydrogenase complex of

AUTHOR(S): CORPORATE SOURCE: SOURCE:

laurentii and Ustilago maydis White, G. A.; Thorn, G. D. Res. Inst., Agric. Dep. Canada, London, ON, Can. Pesticide Biochemistry and Physiology (1975), 5(4),

380-95

CODEN: PCBPBS; ISSN: 0048-3575

DOCUMENT TYPE: LANGUAGE:

MENT TYPE: Journal
UNGE: English
For diagram(s), see printed CA Issue.
The systemic fungicide, carboxin (I) [5234-68-4] and a variety of carboxamide compds. exhibit a marked specificity for Basidiomycete fungi.
This unique specificity resides in the mitochondrial succinic dehydrogenase [9002-02-2] complex (SDC) of sensitive Basidiomycetes such as U. maydis, the corn smut fungus. The present study examines in detail the structure-activity relationships of 93 carboxamide compds. and the

of two carboxin-sensitive organisms, U. maydis and a Basidiomycetous yeast, C. laurentii. It has been possible to elucidate substantially the requirement in mol. structure needed for inhibition of the mitochondrial SDC. With few exceptions, a good correlation exists between the inhibitory activity of carboxamides towards the SDC of U. maydis and C. laurentii and the inhibition of growth of carboxamide-sensitive fungi, both in vitro and in vivo on the diseased plant. The structure-activity results were used as a basis for the synthesis of new, fungicidally-active carboxamides. The compds. most active against the mycelial growth of Rhizoctonia solani were also tested on spore germination or mycelial growth of non-Basidiomycete fungi. Three carboxamilides (3-methyl-thophene-2-carboxamilide (56776-44-6) methyl-benzamilide (56776-45-5), and 3'-methyl-2-ethylbenzamilide (56776-46-65) had a fungitoxic spectrum which extended beyond Basidiomycetes. The spectrum of fungicidal activity of carboxamilides appears to be altered not only by substitution in the amiline ring, but by

the nature of the ring attached to the carbonyl. No correlation was found

between the inhibitory activity of oxathiins and benzanilides and their

calculated partition coeffs. 6577-30-6 6577-34-0 6577-38-4 13502-62-2 13502-78-0 14316-45-1 32416-55-0 35330-44-0 56776-47-7 ΙT

RL: BIOL (Biological study)
(succinate dehydrogenase of Basidiomycete fungi inhibition by,
structure and fungicidal activity in relation to)
6577-30-6 HCAPLUS
1,4-OXATHIN-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

(9CI)

(CA INDEX NAME)

L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

14316-45-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

32416-55-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-(961) (CA INDEX NAME)

44-0 HCAPLUS athin-3-carboxamide, N-{2,6-dimethylphenyl}-5,6-dihydro-2-methyl-(CA INDEX NAME)

56776-47-7 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-(961) (CA INDEX NAME)

L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

6577-38-4 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13582-62-2 HCAPLUS 1,4-0xathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

13582-78-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-{2,3-dimethylphenÿl}-5,6-dihydro-2-methyl-(9CI) {CA INDEX NAME}

(Continued)

L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

L12 ANSWER 34 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1974:459175 HCAPLUS DOCUMENT NUMBER: 81:59175

TITLE: AUTHOR(S):

81:59175
1.4-oxathiin derivatives protect plants against ozone Rich, Saul; Ames, Ronald; Zukel, J. W. Connecticut Agric. Exp. Stn., New Haven, CT, USA Plant Disease Reporter (1974), 58(2), 162-4 CODEN. PLDRA4; ISSN: 0032-0811 CORPORATE SOURCE: SOURCE:

DOCUMENT TYPE:

LANGUAGE: English

LANGUAGE: English

AB Beans, cotton, tobacco, tomatoes and soybeans were protected from injury
by 25 ppm ozone [10028-15-6], carboxin [1] [5234-68-4], and other
1,4-oxathin derivs. The ability of the compds. to protect against ozone
injury is not related to its fungicidal activity. The effect of
oxidation of
the satom or substitution on the anilide group on the effectiveness of
the protective analogs was discussed.

IT 6577-30-6 1582-62-2
RL: BIOL (Biological study)
(come injury prevention by, in crop plants)
RN 6577-30-6 RCAPLUS
CN 1,4-oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)(9CI)
(CA INDEX NAME)

(CA INDEX NAME)

13582-62-2 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-{2-ethylphenyl}-5,6-dihydro-2-methyl- (9CI) (CA INDEX HAME)

L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

13582-78-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13582-79-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

17757-76-5 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9C1) (CA INDEX NAME)

17757-79-8 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-,4-oxide (9CI) (CA INDEX NAME)

L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1974:434549 HCAPLUS
DOCUMENT NUMBER: 5,6-Dihydro-2-methyl-1,4-oxathiin-3-carboxamide as plant protectant against air pollution
Hager, Frederick M.
Uniroyal Ltd.
Ger. Offen., 28 pp.
DOCUMENT TYPE: Patent

DOCUMENT TYPE:

LANGUAGE: German

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	DE 2238053	A1	19731206	DE 1972-2238053	19720802
	AT 319661	В	19750110	AT 1972-6239	19720719
	FR 2193548	A1	19740222	FR 1972-26726	19720725
	GB 1399286	A	19750702	GB 1972-35159	19720727
	IT 964932	В	19740131	IT 1972-69630	19720811
	CA 980593	A1	19751230	CA 1972~151255	19720908
	CA 980594	A1	19751230	CA 1972-151256	19720908
	JP 49024724	A	19740305	JP 1972-94464	19720920
PRI	ORITY APPLN. INFO.:			US 1972-255558 A	19720522

AB Thirty-five oxathiin derivs. (I, R = M, Me, or Et, R1 = e.g. Ph, cyclohexyl, 4-MeG6H4, 2-EtC6H4, or 2,4-(MeO)2C6H3), their S-oxides, and 5,5-dioxides protected plants, e.g. tobacco, bean, cotton, soybean, or tomato plants, against damaging by air pollutants, e.g. ozone. Thus, administration of 12 ppm
5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide
[5234-68-4] to the soil protected Pinto beans 100% against ozone damage.
IT 6577-30-6 13582-62-2 13582-78-0
13582-79-1 17757-76-5 17757-79-8
17757-91-4 17757-94-7 32416-55-0
RL: BIOL (Biological study)
(plant protective agent, against ozone damage)
R6577-30-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9C1)
(CA INDEX NAME)

(CA INDEX NAME)

13582-62-2 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17757-91-4 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-,
4,4-dioxide (9CI) (CA INDEX NAME)

17757-94-7 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

32416-55-0 HCAPLUS

1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1994 ACCESSION NUMBER: 1973:155412 HCAPLUS DOCUMENT NUMBER: 78:155412

DOCUMENT NUMBER: 78:155412
TITLE:
1-Oxa-2-methyl-3-{aminocarbonyl}-4-thia-2-cyclohexenes
INVENTOR(S):
Kulka, Marshall: Thiara, Dalel Singh; Harrison,
William Ashley
PATENT ASSIGNEE(S):
Unicoyal, Inc.
Ger. 10 pp. Division of Ger. 1,543,942 (See Neth.
66,05,525, CA 66;95055w).
CODEN: GWXXAW
DOCUMENT TYPE:
LANGUAGE:
PAMILY ACC. NUM. COUNT:
PAMILY ACC. NUM. COUNT:
2

APPLICATION NO. PATENT NO. KIND DATE DE 1793632 US 3393202 BR 6677408 BE 679985 IL 25635 NL 6910431 PRIORITY APPLN. INFO.: DE 1967-1793632 US 1965-451048 BR 1966-177408 BE 1966-677985 IL 1966-25635 NL 1969-10431 US 1965-451048 C2 A D0 A A 19730719 19660425 19680716 19730809 19661003 19700420 19650426 19660228 19660425 19660426 A 19650426

The title compds, acted as systemic fungicides in plants and animals. Some individual compds, also showed bactericidal and antiviral activity. For example, 1-oxa-2-methyl-3-(o-phenylanilidocarbonyl)-4-thiacyclohex-2-ene (1) [6577-34-0] was highly effective in vitro at 1000 ppm against the human pathogens Trichophyton mentagrophytes var interdigitale and T. rubrum. Spraying with 1-oxa-2-methyl-3-(anilidocarbonyl)-4-thiacyclohex-2-ene (11) [5234-68-4] was 1008 effective against Uromyces phaseoli on beans at 100 ppm and 908 effective against Alternaria solani on tomatoes at 500 ppm. Incorporation of 20 ppm 1-oxa-2-methyl-3-(N,N-dibutylamidocarbonyl)-4-thiacyclohex-2-ene [13582-30-4] into the soil before sowing gave 94% protection of cotton from Rhizoctonia solani. 6577-30-6 5577-34-6 13582-64-8 14316-45-1
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); (Tungicides)

([Ungicides])

(fungleides)
(577-30-6 MCAPLUS
1,4-Oxathisin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

(9CI) (CA INDEX NAME)

L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

6577-34-0 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13502-62-2 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

13582-78-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13582-84-8 HCAPLUS 1,4-Oxachiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl- (9C1) (CA INDEX NAME)

14316-45-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

L12 ANSWER 37 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 CCCESSION NUMBER: 1973:39134 HCAPLUS DOCUMENT NUMBER: 78:39134

Effectiveness of systemic fungicide seed dressings as protectants of barley seedlings against Cochliobolus sativus TITLE:

AUTHOR (S)

Richardson, Lloyd T. Res. Inst., Canada Dep. Agric., London, ON, Can. Canadian Journal of Plant Science (1972), 52(6), 949-53 CORPORATE SOURCE:

SOURCE:

949-53 CODEN: CPLSAY; ISSN: 0008-4220 Journal English

DOCUMENT TYPE: LANGUAGE:

C. sativus was completely controlled on barley seeds by treatment with 5

Vitavax [5234-68-4], 2.5 g. F 427 (2,3-dihydro-5-o-phenylanilido-6-methyl-1,4-oxathin) [6577-34-0] or 2.5 g G 696 (2,4-dimethyl-5-carboxanilidothiazole) [21452-18-6]/kg seed. In the greenhouse, the emergence of barley was increased by seed treatment with 2.5 g G 696/kg. Of all the seed-dressing fungicides tested, only G 696 controlled infection from leaf inoculation.

IT

65/7-34-0 (Biological study)
(Cochliobolus sativus control by, in barley, by seed treatment)
6577-34-0 HCAPEUS
1,4-0xathin-3-carboxamide, N-(1,1'-biphenyl)-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME) (CA INDEX NAME)

L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1972:526649 HCAPLUS DOCUMENT NUMBER: 77:126649

7,7:120049 5,6-Dihydro-2-methyl-1,4-oxathiin-3-carboxamide 4,4-dioxides TITLE:

 $q,q-\alpha$ loxides Pande, Gyan Shanker; Balatoni, Julius Attila Uniroyal Ltd. INVENTOR (S):

PATENT ASSIGNEE(S): SOURCE: Ger. Offen., 22 pp. CODEN: GWXXBX

DOCUMENT TYPE:

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2158312	A	19720713	DE 1971-2158312	19711124
US 3888878	A	19750610	US 1970-101429	19701224
NL 7116006	А	19720627	NL 1971-16006	19711119
IT 942931	В	19730402	IT 1971-70838	19711123
RO 62258	Al	19771015	RO 1971-68848	19711124
AT 312626	В	19740110	AT 1971-10260	19711129
FR 2119390	A5	19720804	FR 1971-44250	19711209
GB 1379745	A	19750108	GB 1971~57268	19711209
CH 559745	A5	19750314	CH 1971-17968	19711209
CS 187353	B2	19790131	CS 1971-8614	19711210
SU 428606	A3	19740515	SU 1971-1726644	19711217
SE 384509	В	19760510	SE 1971-16440	19711221
DK 127508	В	19731119	DK 1971-6315	19711223
PL 83078	A5	19751231	PL 1971-152444	19711223
ORITY APPLN. INFO.:			US 1970-101429 F	19701224

For diagram(5), see printed CA Issue.
Eleven title compds. (I, R = Ph, hexyl, 2,6-Et2C6H3, o-MeC6H4,
2,6-ClMeC6H3, 3,2-ClMeC6H3, cyclohexyl, 2,6-xylyl, m-O2NC6H4,
a-naphthyl, Me2CH1, useful as fungicides, were prepared by oxidation of
the oxathiin with a 2-phase mixture of HCO2H + H2O2 in either MeCOCHMe2

MePh at 75-92*. Thus, 5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide was suspended in MeCOCHMe2, HCO2H, and H2O2, and the

mixture refluxed 1.5 hr to give 97% I (R = Ph).

IT 6577-30-6P 13582-79-1P 13582-84-8P

14316-45-1P 35330-44-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 6577-30-6 HCAPFUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI)

(CA INDEX NAME)

L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

13582-79-1 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13582-84-8 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

14316-45-1 HCAPLUS 1,4-Oxathin-3-carboxamidé, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(SCI) (CA INDEX NAME)

35330-44-0 HCAPLUS 1,4-0xathiin-3-carboxamide, N-{2,6-dimethylphenyl}-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

L12 ANSWER 39 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1972:444336 HCAPLUS DOCUMENT NUMBER: 77:44336

DOCUMENT NUMBER: TITLE:

77:44336
Control of virus diseases of plants with
5,6-dihydro-2-methyl-1,4-oxathinn-3-carboxamides
Davis, Robert A.; Grahame, Robert E.; Kulka, Marshall
Uniroyal, Inc.; Uniroyal Ltd.
U.S., 4 pp.
CODEN: USXXAM
Patent
English

INVENTOR(S): PATENT ASSIGNEE(S):

SOURCE:

DOCUMENT TYPE: LANGUAGE:

English

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3657449	A	19720418	US 1970-17945	19700309
CA 942189	A1	19740219	CA 1970-97250	19701103
PRIORITY APPLN. INFO.:			US 1970-17945 A	19700309

Plant diseases caused by virus, such as tobacco ringspot and southern

mosaic viruses, are controlled by application of oxathiincarboxamides. Under severe test conditions where the untreated cowpea plants were

within 5-7 days, treatment with 5,6-dihydro-2-methyl-N-(m-tolyl)-1,4oxathinn-3-carboxamide (I) [6577-31-7] (35 ppm) resulted in 100% survival
2-3 weeks after injection with tobacco ringspot virus when I was applied
as soil drench prior to inoculation.
6577-34-0 13582-62-2 17757-91-4
35330-44-0
RL: BIOL (Biological study)
(as virucide for plants)
6577-34-0 HCAPLUS
1 4-0Varbin-3-carboxamide. N-[1,1]-hiphenyl]-2-vl-5,6-dihydro-2-methyl-

ΙT

1,4-Oxathiin-3-carboxamide, N-{1,1'-biphenyl}-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13582-62-2 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

17757-91-4 HCAPLUS

L12 ANSWER 39 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN 1.4-Oxathin-3-carboxamide, 5.6-dihydro-2-methyl-N-(2-methylphenyl)-,
4.4-dioxide (9CI) (CA INDEX NAME)

35330-44-0 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

1.12 ANSWER 40 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 40 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1972:786 HCAPLUS
TITLE: Potent effect of 1,4-oxathin systemic fungicides on succinate oxidation by a particulate preparation from Ustilago maydis

AUTHOR(S): White, G. A.

CORPORATE SOURCE: Res. Inst., Canada Dep. Agric., London, ON, Can.
Biochemical and Biophysical Research Communications (1971), 44(5), 1212-19
CODEN: BBRCA9: ISSN: 0006-291X
Journal
LANGUAGE: Regish
AB Carboxine (5,6-dihydro-2-methyl-1,4-oxathin-3-carboxanilide)(I)

LANGUAGE: AB Carb

MENT TYPE: Journal WINGE: Honglish Carboxine (5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide)(I) [15234-68-4] noncompetitively inhibited succinate [110-15-6] oxidation in particulate prepns. from U. maydis (corn smut) by acting as a steric inhibitor toward succinate dehydrogenase, or by inhibiting an electron carrier component immediate to the dehydrogenase. The most potent inhibitor was 3'-methyl carboxine (II) [6577-31-7] and the least potent, the hydrolysis product of I, 5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxylic acid [6577-69-1]. The thiazole fungicides, including 2-amino-4-methylthiazole-5-carboxanilide [21452-14-2], were also strong inhibitors of succinate oxidation 6577-30-6 5577-34-0 35330-44-0
RL: BIOL (Biological study) (succinate oxidation by Ustilago maydis in relation to) 6577-30-6 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-1)

IΤ

(9CI) (CA INDEX NAME)

6577-34-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[1,1'-bipheny1]-2-y1-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

35330-44-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl-(9C1) (CA INDEX NAME)

Mode of action of oxathiin systemic fungicides. TITLE:

AUTHOR(S): CORPORATE SOURCE:

Mode of action of Oxachiin systemic fungicides. Structure-activity relations
Mathre, Donald E.
Dep. Bot. Microbiol., Montana State Univ., Bozeman,
MT. USA
Journal of Agricultural and Food Chemistry (1971),
19(5), 872-4
CODEN: JAFCAU; ISSN: 0021-8561

SOURCE:

DOCUMENT TYPE: Journal

NACE: English
Toxicities of the oxathiin systemic fungicide carboxine
(5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide)(I) [5234-68-4] and 8
structurally related compds. were compared with their effects on

pathways in sensitive fungi, the toxic compds. also showing strong inhibition of acetate [64-19-7] metabolism and RNA synthesis. Oxidation

the I S atom or elimination of the benzene ring from I reduced or destroyed the toxicity.  $6577\mbox{-}34\mbox{-}0$ 

TT

bb://-34-U RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

USES (USes)

(fungicides, action mechanism of)
6577-34-0 HCAPLUS
1,4-ONAthin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1971:475245 HCAPLUS DOCUMENT NUMBER: 75:75245

75:75245
Relations of molecular structure of 1,4-oxathiin fungicides to chemotherapeutic activity against rust and smut fungi in grasses
Hardison, John R.
Crops Res. Div., Agric. Res. Serv., Corvallis, OR, TITLE:

AUTHOR(S): CORPORATE SOURCE:

USA
SOURCE: Phytopathology (1971), 61(6), 731-5
CODEN: PHYTAJ ISSN: 0031-949X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Carboxin (I), oxycarboxin (II), and 10 other carboxin analogs were evalulated for systemic fungicidal activity against stripe rust (Puccin striiformis), stripe smut (Ustilago striiformis), and flag smut (Urocyatis agropyri) after soil application. Activity of I was poor against rust and

agropyri) after soil application. Activity of I was poor against rust stripe smut and fair against flag smut. II was excellent against rust, good against stripe smut, and completely eradicated flag smut. 5,6-Dihydro-2-methyl-1,4-oxathiin-3-carboxanilide-4-oxide was superior to I against rust but inferior to II against all 3 diseases. 5,6-Dihydro-4'-methoxy-2-methyl-1,4-oxathiin-3-carboxanilide-4,4-dioxide had poor activity against stripe smut and decreased activity against flag smut but maintained good rust control as compared to II. Decreases or loss of activity against all 3 diseases was apparent in most nonoxidized analogs with substitutions to the phenyl ring, including 5,6-dihydro-2-methyl-N-(2-biphenyl)-1,4-oxathiin-3-carboxanide, 3'-chloro-5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide, and 5,6-dihydro-4'-methoxy-2,2'-dimethyl-1,4-oxathiin-3-carboxanilide, 5,6-dihydro-4'-methoxy-2,2'-dimethyl-1,4-oxathiin-3-carboxanilide shonoxidized heterocycle impaired rust control but had a much better activity against stripe smut and flag smut than did I and less phytotoxicity than II. 5,6-dihydro-2,2'-dimethyl-1,4-oxathiin-3-carboxanilide-1,4-dioxide, which combines the active substitutions of II and the 2',3'-dimethyl derivative, maintained strong activity against

IT

3
diseases with somewhat less plant injury.
6577-34-0 13582-78-0 13582-79-1
14316-45-1, 1,4-0xachiin-3-carboxanilide, 2',6'-diethyl-5,6-dihydro-2-methyl-1757-93-6 32416-55-0
RL: BIOL (Biological study)

(Puccinia striiformis and Ustilago striiformis control by) 6577-34-0 HCAPLUS

.4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(CA INDEX NAME)

L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

Ovathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-yl- (9CI) (CA INDEX NAME)

(Continued)

L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

13582-78-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(CA INDEX NAME) (9CI)

13582-79-1 HCAPLUS

13582-79-1 HCAPLUS | 1,4-0xathiun-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

14316-45-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

17757-93-6 HCRPLUS 1,4-Oxathin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 43 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1970:497634 HCAPLUS DOCUMENT NUMBER: 73:97834

TITLE:

Fungitoxicity and structure-activity relation of some oxathiin and thiazole derivatives

Snel, Marten; Von Schmeling, Bogislav; Edgington, Lloyd V. AUTHOR(S):

Lloyd V.
Dep. Bot., Univ. Guelph, Guelph, ON, Can.
Phytopathology (1970), 60(8), 1164-9
CODEN; PHYTAJ; ISSN: 0031-949X CORPORATE SOURCE:

DOCUMENT TYPE: Journal

MENT TYPE: Journal UAGE: English English ED50 values of carboxin (5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide), its sulfone analog, oxycarboxin (both systemic fungicides used for control of diseases caused by Basidiomycotes), and 13 related, substituted oxathiin and thiazole compds. were determined to a selected

or or Basidiomycetes, Deuteromycetes, and a zygomycete. Eradicant activity of these compds. was determined against bean rust, Uromyces phaseoli typica. Substitutions in the carboxin mol. studied do not increase the spectrum

fungi to which the oxathiins are toxic. A number of yeastlike lower Basidiomycetes belonging to the Tremellales (jelly fungi) proved to be insensitive to oxathiins. The only deuteromycete in this study sensitive to oxathiins was Monilia Cinera f. americana. The 3'-methyl analog of carboxin is the only compound surpassing the fungitoxicity of carboxin. Electron withdrawing groups (Cl and NO2) substituted in the aniline ring markedly reduce fungitoxicity. Replacement of the 2-methyloxathiin

markedly reduce fungitoxicity. Replacement of the 2-methyloxathiin moiety by an o-tolyl, 2,4-dimethylthiazolyl, 2-amino-4-methylthiazolyl, or even to some extent by a butyryl group, results in compds. retaining the original biol. activity. Benzanilide is significantly less toxic to Rhizoctonia solani than o-toluanilide, indicating that a methyl group in position 2 is necessary for good toxicity. Results of evaluation of the eradicant activity of oxathiins against bean rust correlate very well with those of in vitro fungitoxicity tests, suggesting that oxathiin systemic fungicides act by virtue of their fungitoxicity, rather than by altering host metabolism.

IT 6577-30-6

Ri. AGR (Agricultural use) BAC (Biological activity or effector, except

6577-30-6 RI: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses) (fungicides) 6577-30-6 HCAPLUS

(thingleldes) 6577-30-6 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

(CA INDEX NAME)

L12 ANSWER 44 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1969:511811 HCAPLUS DOCUMENT NUMBER: 71:111811

Effect of fungicides on Cochliobolus sativus and other

AUTHOR (S):

CORPORATE SOURCE: SOURCE:

fungi on barley seed in soil Mills, J. T.: Wallace, H. A. H. Canada Dep. Agr., Winnipeg, MB, Can. Canadian Journal of Plant Science (1969), 49(5),

CODEN: CPLSAY; ISSN: 0008-4220

DOCUMENT TYPE: LANGUAGE:

CODEN: CPLSAY; ISSN: 0008-4220

MENT TYPE: Journal

IMAGE: English

Nineteen seed-treatment fungicides were evaluated on barley seed infected

with C. sativus, Alternaria alternata, and Streptomyces species. Seeds

were treated with 0.97-2.80 g./kg. of each fungicide, placed in the soil

for 7 days at 20', and examined Ceresan M (0.97 g./kg.), Panogen PX

(2.6 g./kg.), and Dithane M-45 (2.6 g./kg.) were best for control of C.

sativus. A. alternate was controlled by all but SMF 850

(hexachlorobenzene-captan-Maneb formulation, I), and G-696

(2.4-dimethyl-5-carboxanilidothiazole, II). Streptomyces growth was

enhanced by I, II, 4497 (bis(1,2,2-trichloroethyl) sulfoxide); SMF 800,

SMF 860 (similar to I), and F-735 (2,3-dihydro-5-arboxanilidot-6-methyl
1,4-oxathin). A filter paper technique was recommended for initial

screening of fungicides.

6577-34-0

RL: BIOL (Biological study)

(fungus control by, on barley)

6577-34-0 HCAPLUS

1,4-oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl
(9C1) (CA INDEX NAME)

L12 ANSWER 46 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1568:505333 HCAPLUS
COULMENT NUMBER: 69:105333
TITLE: Antifungal 2,3-dihydro-1,4-oxathiin-5-carboxamides
Uniroyal, Inc.
SOURCE: BXXAA
DOCUMENT TYPE: CODEN: BXXXAA
DATE OF THE ORDER STORE STORE

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1124310		19680821	GB 1967-24834	19670530
CA 951243			CA	
DE 1617921			DE	
DE 1617924			DE	
FR 6477			FR	
US 3538225		19701103	US	19660627
PRIORITY APPLN. INFO.	.:		US	19660627

OTHER SOURCE(S):

R SOURCE(S): MARPAT 69:105333 For diagram(s), see printed CA Issue. The title compds. of formula I have useful antifungal activity against dermatophytes, especially against Trichophyton mentagrophytes var

interdigitale. The most active compds, against this fungus were I (R = 2-biphenylyl  $\sim$  1 (R = 2-biphenylyl  $\sim$  2 (R = 2-biph

The most active compds, against this summys moves of the first control o

um,
and Microsporum audouini.
6577-34-0 14316-45-1 21554-33-6
6577-34-0 14316-45-1 21554-33-6
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study);
USES (Uses)
(as fungicide)
6577-34-0 HCAPLUS
1,4-Oxathin-3-carboxamide, N-{1,1'-biphenyl}-2-y1-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

14316-45-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(9C1) (CA INDEX NAME)

L12 ANSWER 45 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1569:19209 HCAPLUS DOCUMENT NUMBER: 70:19209

TITLE: Determination of selective action of fungicides on

AUTHOR (5):

microflora of barley seed Mills, J. T.: Wallace, H. A. H. Res. Sta., Canada Dep. Agr., Winnipeg, MB, Can. Canadian Journal of Plant Science (1968), 48(6), 587-94 CODEN: CPLSAY; ISSN: 0008-4220 CORPORATE SOURCE: SOURCE:

DOCUMENT TYPE:

DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of 47 seed-treatment fungicides on the microflora of barley
seed naturally infested 95-100% with Cochliobolus sativus and other fungi
were investigated after 7 days on moist filter paper. Each fungicide had
a characteristic and reproducible effect on these organisms. Fungicides
containing Hg or maneb were highly effective against all organisms.

specific effects were associated with other fungicides. Least survival (best

t control) of C. sativus was obtained with Ceresan M. Pandrinox APX and Panogen PX among the mercurials, and Green Cross SWF 850 and SWF 860. Chemagro 4497, and Chipman 53.64 among the nonmercurials. The incidence of Acremoniella detected was high on seed treated with Dexon, Cephalosporium with Vitavax, Streptomyces with Green Cross SWF 850, and Cladosporium with Green Cross 3922. The data obtained by the filter

method should be complementary to those obtained from treated seed after

days in soil.
6577-34-0
RL: BIOL (Biological study)
(as fungicides for barley seed)
6577-34-0 HCAPUUS
1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

L12 ANSWER 46 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

21554-33-6 HCAPLUS

CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2,4,6-trimethylphenyl)-(9CI) (CA INDEX NAME)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1968:95830 HCAPLUS DOCUMENT NUMBER: 68:95830 TITLE: Carboxamido oxathiin oxides as and

1900:99030 Garboxamido oxathiin oxides as systemic fungicides

INVENTOR (S):

bactericides
Von Schmeling, Bogislaw; Von Schmeling, Bogislav;
Thiara, Dalel S.; Harrison, William Ashley
Uniroyal, Inc.
Fr., 15 pp.
CODEN: FRXXAK
Patent
French

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: French

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1477062		19670414	FR 1966-58541	19660421
DE 1567211			DE	
GB 1099243			GB	
US 3402241		19680917	US 1965-506606	19651105
PRIORITY APPLN. INFO.:			US	19651105

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9CI) (CA INDEX NAME)

17757-76-5 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-{2-ethylphenyl}-5,6-dihydro-2-methyl-,4-oxide (961) (CA INDEX NAME)

17757-78-7 HCAPLUS

,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-,-oxide (9CI) (CA INDEX NAME)

17757-79-8 HCAPLUS 1,4-Oxathian-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-,4-oxide (961) (CA INDEX NAME)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

HCAPLUS

1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

17757-93-6 HCAPLUS

1/3-5-5-6 incarboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17757-98-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17758-04-2 HCAPLUS

1//30-04-2 nearbox 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17758-05-3 HCAPLUS

1//58-05-3 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-,
4,4-dioxide (9CI) (CA INDEX NAME)

1/102-3042 mekebus 1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17762-75-3 HCAPLUS 1,4-Oxathlin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1968:78294 HCAPLUS COLUMENT NUMBER: 68:78294

68:72,49
2.3-Diplydro-5-carbamoyl-6-methyl-1,4-oxathiin sulfoxides and sulfones
Uniroyal, Inc.
Neth. Appl., 28 pp.
CODEN: NAXXAN TITLE:

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: Patent

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6605527		19670508	NL 1966-5527	19660425
DE 1543941			DE	
DE 1793638			DE	
FR 1477061			FR	
GB 1099245			GB	
US 3399214		19680827	US 1965-506596	19651105
PRIORITY APPLN. II	NFO.:		US	19651105

For diagram(s), see printed CA Issue. The title compds. (I) are prepared by oxidation of oxathiins. Thus, 72

SO2C12 was dropwise added to a solution of 150 g. acetoacetanilide (II)

so2ci2 was dropwise added to a solution of 150 g. acetoacetanilide (III)

1. C6H6 to give 131 g. α-chloroacetoacetanilide (III), m.
136-8°. To 63.5 g. III in 300 cc. C6H6, 20.4 g. KOH solution, then
22.2 cc. 2-mercaptoethanol (IV) in 400 cc. MeOH was added in 2 hrs. at
30° to give 45.8 g. 2, 3-dihydro-5-(phenylcarbamoyl)-6-methyl-1, 4oxathiin (V), m. 93-5°. V also may be prepared by treating 33 g.
a-chloroacetoacetate in 200 cc. C6H6 with a solution of 13.6 g. KOH and
16 g. IV in 30 cc. MeOH at 30°, saponification of the obtained Et
2,3-dihydro-6-methyl-1,4-oxathiin-5-carboxylate, bl 107-10°, with
NAOH in EtOH, then treating the acid with SOCI2 and condensing the
chloride with PhNH2 in CHCI3. A mixture of 480 g.
-dihydro-5-carboxy-6methyl-1,4-oxathiin and 600 cc. CHCI3 is treated with 393 g. SOCI2, then
with m-toluidine to give 2,3-dihydro-5(m-methylphenylcarbamoyl)-6-methyl1,4-oxathiine (VI), m. 82-4°. Similarly were prepared the
5-substituted V analogs: cyclohexylcarbamoyl, m. 130-1°,
3,5-dichlorophenylcarbamoyl, m. 147-9°, noctylcarbamoyl,
74-5°, 2,4,5-trichlorophenylcarbamoyl, m. 165-7°. To a
solution of 25 g. V in 150 cc. AcOH and 5 cc. H20 12 cc. 30% H2O2 and 13

ACOH was slowly added at 10-13° to give the 4-oxide, m.

120-1° (iso-PrON). Treatment of 117.5 g. V in 500 cc. AcOH at

40-50° with 130 cc. 30% H2O2 gave the 4,4-dioxide, m.

128-30° (ECON). Similarly are obtained the tabulated 4-oxides and

4,4-dioxides from the appropriate starting amines. The products ar

intermediates for syntheses.

17757-73-2P 17757-76-5P 17757-78-7P

17757-79-8P 17757-91-4P 17757-93-6P

17757-94-7P 17757-98-1P 17758-04-2P

17758-05-3P 17762-58-2P 17762-75-3P

17762-76-4P 17843-81-1P 17946-62-2P

17843-68-4P 17843-81-1P 17946-62-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

RL: SPN (Synthetic preparation); PREP (Preparation)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

(prepn. of) 17757-73-2 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9CI) (CA INDEX NAME)

17757-76-5 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9CI) (CA INDEX'NAME)

17757-78-7 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9CI) (CA INDEX NAME)

17757-79-8 HCAPLUS
1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-,4-oxide (9CI) (CA INDEX NAME)

1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-,4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

17757-93-6 MCAPLUS
1,4-Oxathiin-3-carboxamide, N-{2,3-dimethylphenyl}-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

17757-94-7 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-{2-ethylphenyl}-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

17757-98-1 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17759-04-2 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17842-03-4 HCAPLUS 1,4-Oxathiin-3-carboxy-o-toluidide, N-ethyl-5,6-dihydro-2-methyl-, 4,4-dioxide (8CI) (CA INDEX NAME)

17842-10-3 HCAPLUS 1,4-Oxathiin-3-carboxanilide, 5,6-dihydro-2,2',4',6'-tetramethyl-, 4,4-dioxide (8CI) (CA INDEX NAME)

17843-68-4 HCAPLUS 1,4-Oxathiin-3-carboxy-o-toluidide, 5'-chloro-5,6-dihydro-2-methyl-, 4,4-dioxide (8CI) (CA INDEX NAME)

17843-81-1 HCAPLUS
Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-,
S,5-dioxide (BCI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

17758-05-3 HCAPLUS
1,4-0xathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9GI) (CA IMDEX NAME)

17762-58-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17762-75-3 HCAPLUS
1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17762-76-4 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI). (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

1,4-Oxathiin-3-carboxamide, N-{2-(aminocarbonyl)phenyl}-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

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L12 ANSWER 49 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN
ED Entered STN: 12 May 1994
ACCESSION NUMBER: 1969:21147 HCAPLUS
DOCUMENT NUMBER: 68:21147
ITITLE: Fungitoxic spectrum of oxathiin compounds
Edgington, Lloyd V.; Barron, G. L.
CORPORATE SOURCE: Univ. Guelph, Can.
Phytopathology (1967), 57(11), 1256-7
CODEN: PHYTAJ; ISSN: 0031-949X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fifty percent inhibitory concns. (LC50) of 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin (D735) and 2,3-dihydro-5-lo-phenylcarboxanilido-6-methyl-1,4-oxathiin (H272) toward 33 Deuteromycetes, Phytomycetes, and Basidiomycetes were determined Both compds. were highly toxic to the Basidiomycetes and both had LC50 values < 5 + 10-6M towards both Rhizoctonia solani and Polyporus giganteus. D735 was only slightly or moderately toxic to other fungi tested, except towards Verticallium albo-atrum and Monilia cinerea f. americana (LC50 values <6 + 10-6M and <5 + 10-6M, resp.). F427 was also highly toxic towards all members of Porosporae examined with LC50 values ranging 5 + 10-6M-2 + 10-5M against Alternaria solani, Stemphylium botryosum, Bipolaris sorokinianum, Drechslera, Curvularia geniculata, Dichotomophkhora indica, Dendryphiella salina, Dendryphien laxum, and Torula herbarum. In the Phialosporae, F427 was highly toxic only to Aspergillus species and had LC50 values of 5 + 10-6M towards A. amstelodami, A. flavus, A. fumigatus, and A. niger. In the Arthrosporae, F427 was moderately toxic to both species tested, with LC50 values of 20 + 10-6 and 9 + 10-6M towards Amblyosporium botrytis and Oidiodendron truncatum, resp.
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the Blastosporae, F427 was highly toxic to Cladosporium cucumerinum, Botrytis species, and M. cineres f. americanum with LC50 5 + 10-6M towards each of these species, but was only slightly inhibitory towards the yeasts Rhodotorula surantiaca, and Candida humicola. F427 was not inhibitory towards any of the species of Annellosporae, Sympodulosporae, or Aleuriosporae examined, except towards Pithomyces Chartarum (LC50 <5 + 10-6M). In the Phycomycetes, F427 was highly toxic towards Cunninghamella echinulata and Thamnidium elegans but only moderately

to Mucor species and Rhizopus nigricans LC50 values <5 + 10-6, <5 + 10-6, Z2 + 10-6, and Z7 + 10-6M, resp. Activity against C. echinulata suggests a possible activity of F427 against other mucorales such as Choanephora cucurbitarum, a parasite of cucurbits.

therefore has a wider spectrum of fungicidal activity than D735, although it does show a preference for certain taxonomic groupings. 6577-34-0P (Preparation) (preparation of) (preparation of) (preparation of) (preparation of) (preparation) (preparation)

L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1967:95055 HCAPLUS

DOCUMENT NUMBER: 66:95055

TITLE: 2,3-Dihydro-5-carboxamide-6-methyl-1,4-oxathiin

United States Rubber Co.

Neth. Appl., 18 pp.

CODE: NAXXAN

Pacent

Pacent

Pacent DOCUMENT TIPE: P
LANGUAGE: D
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6605525	А	19661027	NL 1966-5525	19660425
US 3393202	A	19680716	US 1965-451048	19650426
BR 6677408	D0	19730809	BR 1966-177408	19660228
BE 679985	A	19661003	BE 1966-679985	19660425
IL 25635	A	19700420	IL 1966-25635	19660426
NL 6910431	A	19691027	NL 1969-10431	19690708
TODITY ADDIN THEO .			US 1965-451048 A	19650426

For diagram(s), see printed CA Issue. The title compds. (I) are prepared by reaction of an  $\alpha$ -chloroacetylacetamide or a lower alkyl ester of  $\alpha$ -chloroacetylacetic acid with HSC2H4OH. Thus, to 150 g. AcCH2CONHPh in 1 l. C6H6 was added

1.5 hrs. 72 ml. SO2C12, the mixture stirred 0.5 hrs., and filtered to

1.5 hrs. 72 ml. SO2C12, the mixture stirred 0.5 hrs., and filtered to yield

131 g. AccHClCONHPh (II), m. 136-8*. To 63.5 g. II in 300 ml. C6H6

was added in 2 hrs. <30*, 20.4 g. KOH, 22.2 ml. HSC2HAOR, and 40

ml. MeOH and the mixture stirred 1 hr., filtered, the filtrate,
concentrated, the
residue dissolved in C6H6, acidified with 0.8 g. 4-MeC6H4SO3H, the
solution
refluxed until 5 ml. H2O separated and concentrated to yield 45.8 g. I

(R - NHPh)
(III), m. 93-5* (alc.). To 260 g. AcCH2CO2Et was added 270 g.
SO2C12 in 3 hrs. at 0-5*, the mixture kept overnight, and distilled to
yield 300 g. AcCHCLCO2Et (IV), b16 88-90* To 33 g. IV in 200 ml.
C6H6 was added in 1.5 hrs. <30*, 13.6 g. KOH, 15 ml. HSC2H4OH, and
30 ml. MeOH, the mixture stirred 1.5 hrs., filtered, concentrated, the
residue

residue
taken up in C6H6, acidified with 4-MeC6H45O3H, the solution refluxed

taken up in C6H6, acidified with 4-MeC6H4SO3H, the solution refluxed until

3.4 ml. H2O separated, washed with H2O, and concentrated to yield 23 g.

I (R = OEt)

(V), bl 107-10°. To 188 g. V in 50 ml. alc. was added 60 g. NaOH in 400 ml. H2O and the mixture refluxed 0.5 hrs., acidified with HCl, and filtered to yield 134 g. I (R = OR) (VI), m. 180-1° (alc.). To 32 g. VI in 200 ml. CHCl3 was added 16 ml. SOCl2, the mixture refluxed 2 hrs.

the solution concentrated, the residue dissolved in C6H6 and 37.2 g. 2 in C6H6 added, to yield after work up 38 g. III. The following I were prepared PhNH2

similar methods (R, m.p., or b.p., and % yield given): NHC6H4CO2H-4, 249-51*, 47; morpholino, b2 168-70*, 80; NHNH2, 190-3*, 75; NH2, 172-4*, 50; NHPr-iso, 117-19*, 65; NHCH2CH:CH2, 73*, 66; NHBu, 85-6*, 70; NHBu-iso,

L12 ANSWER 49 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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L12 AMSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continue 50-1*, 65; NHC12H25, 72*, 64; cyclohexylamino, 127-8*, 77; NHCGH4NOZ-4, 139-80*, 25; NHCGH4OCL+4, 120-2*, 50; NHC12H25, 73*, 85; NHCGH4COZH-2, 187-9*, 60; 2-furylamino, 103-4*; 81; N-pyridyl-, 25; NPC2-iso, b3 119*, 64; NBUZ, b12 200*, 40; N(HZCH:CH2)2, b3 127*, 80; NET2, b3 132*, 60; NMePh, 11-14*, 72; NHCGH4C1-4, 130-2* (MeOH), 48; NHCGH4C1-2, 83-5*, 46; NHCGH4C1-4, 81; NHCGH4OH2-2, 123-6* (MeOH), 45; NHCGH4C1-3, 79-82* (MeOH), 60; NHC6H4H0-3, 79-82* (MeOH), 60; NHCGH4H0-3, 79-82* (MeOH), 60; NHCGH4NOZ-3, 118-20* and 123-5* (MeOH-MEZCO), 60; a-naphthylamino, 125-7* (MeOH), 55; β-naphtylamino, 00; nd-naphtylamino, 125-7* (MeOH), 55; β-naphtylamino, 11-13* (MeOH), 60; NHCGH4P4-4, 23-6*, 65; NHCGH4D2-3, 23-6*, 66; NHCGH4D4-3, 23-6*, 65; NHCGH4D6-3, 125-7*, 65; NHCGH4D2-1, 129-32* (31-2), 61; NHCGH4OCH3-3, 70-2*, 61; NHCGH4D3-3, 70-2*, 61; NHCGH4D3-4, 71; NHCGH17, 74-5*, 84; NHCIGH33, 82-4*, 71; NHCGH17, 74-5*, 84; NHCIGH33, 82-4*, 71; NHCGH17, 74-5*, 84; NHCIGH33, 80-2*, 119-20*, 86; NHCGH4GA-3, 117.5-19.5*, 68; NHCGH4CONH2-3, 119-20*, 86; NHCGH4GA-3, 117.5-19.5*, 68; NHCGH4CONH2-3, 119-20*, 86; NHCGH4GA-3, 117.5-19.5*, 68; NHCGH3MC-3, 2, 101.5-3.5*, 77; NHCGH3C12-5, 2, 120-2*, 56; NHCGH3MC-3, 2, 101.5-3.5*, 77; NHCGH3C12-5, 2, 120-2*, 56; NHCGH3MC-3, 2, 101.5-3.5*, 77; NHCGH3C12-5, 2, 120-2*, 56; NHCGH3MC-3, 2, 166-8*, 57; NHCGH3M2-12-5, 75; NHCGH3C12-5, 3, 147-9*, 76; NHCGH3M2-12-5, 75; NHCGH3C12-5, 3, 147-9*, 76; NHCGH3C12-5, 75; NHCGH3C12-5, 3, 147-9*, 76; NHCGH3MC1-6, 2, 82-4*, 57; NHCGH3C12-5, 3, 147-9*, 76; NHCGH3MC1-6, 2, 82-4*, 57; NHCGH3C12-5, 3, 147-9*, 76; NHCGH3C12-5, 75; NHCGH3C12-5, 4, 2, 166-8*, 67; NHCGH3MC1-6, 2, 82-4*, 57; NHCGH3C12-5, 3, 147-9*, 76; NHCGH3C12-5, 75; NHCGH3
                                                                                  RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
6577-30-6 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-
                           (9CI)
                                                                                                                    (CA INDEX NAME)
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6577-34-0 HCAPLUS 1,4-Oxathiin-3-cerboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

6577-38-4 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-19C1) (CA INDEX NAME)

13582-27-9 HCAPLUS
Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-(8CI) (CA INDEX NAME)

13582-44-0 HCAPLUS Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl}-, methyl ester (8CI) (CA INDEX NAME)

13582-62-2 HCAPLUS

..... L n.v.k.v.3 1,4-Oxathiin-3-carboxamide, N-{2-ethylphenyl}-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

(Continued)

L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

13582-86-0 HCAPLUS 1,4-0xathiin-3-carboxy-o-toluidide, N-ethyl-5,6-dihydro-2-methyl- (8CI) (CA INDEX NAME)

14316-45-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-[9CI) (CA INDEX NAME)

L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

13582-66-6 HCAPLUS

13302-06-0 narros 1,4-Oxathiin-3-carboxanilide, 2'-carbamoyl-5,6-dihydro-2-methyl- (8CI) (CA INDEX NAME)

13582-78-0 HCAPLUS

13582-79-1 HCAPLUS

1,4-Oxacthiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

13582-84-8 HCAPLUS; 1,4-Oxathiin-3-carboxemide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-(9C1) (CA INDEX NAME)

L12 ANSWER 51 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 22 Apr 2001 ACCESSION NUMBER: 1966:438564 HCAPLUS DOCUMENT NUMBER: 65:38564 GS:7190g-h,7191a-b TITLE: Carboxamidooxathiin biocides

INVENTOR(S):

Von Schmeling, Bogislav; Kulka, Marshall; Thiara, Dalel S.; Harrison, William A.

United States Rubber Co. PATENT ASSIGNEE(S):

6 pp.

DOCUMENT TYPE:

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE US 3249499 PRIORITY APPLN. INFO.: 19660503 US 1965-451011 19650426

For diagram(s), see printed CA Issue. Systemic fungicides and bactericides (I) were prepared and tested against Urowyces phaseoli typica, Rhisoctonia solani, and Staphylococcus aureus. The oxathins were prepared by 2 methods: (a) reaction of an  $\alpha$ -chloroacetoacetamide with SO2Cl2 in C6H6, then with HSCH2CH2OH (II) under basic conditions, followed by acid dehydration or (b) chlorination of the alkyl acetoacetate with SO2Cl2, treatment with II, acid dehydration, alkaline hydrolysis, conversion to the acid chloride

SOCI2, and reaction with an amine to form the amide. Thus, 2,3-dihydro-5-achboxanilido-6-methyl-1,4-oxathiin (Ia), m. 93-5* was prepared by adding a solution of 20.4 g. KOH, 22.5 g. II and 40 ml.

was prepared by adding a solution of 20.4 g. ROM, 22.5 g. 11 and 40 Mi. to a stirred suspension of 63.5 g. a-chloroacetoacetanilide and 300 ml. dry C6H6 dropwise in 2 hrs. <30°. The mixture was stirred 1 hr., filtered, solvent stripped, extracted with C6H6, washed with H2O until neutral, acidified with 0.8 g. p-toluenesulfonic acid, refluxed to remove 5 ml. H2.0 washed, and stripped to give 65% I. The following I (R = H) were prepared (R', m.p., and % yield by method a and method b given): o-tolyl (III), 88-9°, 43, -; m-tolyl (IV), 83-5°, 46, 75; p-tolyl, 95-8°, -, 14; o-chlorophenyl, 33-5°, 46, -; 2-biphenylyl, 125-7°, -, 23; butyl, 85-6°, -, 70°, cyclohexyl, 127-8°, -, 77; allyl, 73°, -, 66; a-naphthyl, 125-7°, -, 21; p-ethoxyphenyl, 120-2°, -, 50; 2,4-dimethylphenyl, 76-8°, -, 30; .
m-methoxyphenyl, 83-4.5°, - 65. I (R = Me, R' = Ph), m. 111-14°, was prepared in 728 yield by method b. In sprays at 50 ppm. Ia, III, and IV all gave 90-100% control of U. phaseoli typica which was also controlled by seed treatment with Ia at 8 oz./100 lb. seed or by treatment at 20 ppm. R. solani on cotton seedlings was controlled by 20

treatment at 20 ppm. R. solani on cotton seedlings was controlled by 20 ppm: Ia, III, or IV in the soil or by 2 oz. Ia/100 lb. seed. Ia 128 ppm. and III at 225 ppm. killed S. aureus. 6577-30-69, 1,4-oxathiin-3-carboxy-o-toluidide, 5,6-dihydro-2-methyl-6577-34-09, 1,4-oxathiin-3-carboxyal-6576, delhydro-2-methyl-21-phenyl-6577-38-49, 1,4-oxathiin-3-carboxy-21-41-xylidide, 5;6-dihydro-2-methyl-RL: PREP (Preparation)

NOTE: FROM (Preparation)

(manufacture and use as pesticide)

RN 6577-30-6 HCAPLUS

CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI)

L12 ANSWER 51 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) (CA INDEX NAME)

RN 6577-34-0 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-{1,1'-biphenyl}-2-yl-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

RN 6577-38-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

## **EAST Search History**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	"7119049"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 12:19
S2	34	"3249499"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 13:10
S3	13	"0545099"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/04/05 13:10
S4	12	"545099"	EPO; DERWENT	OR	ON	2007/04/05 13:11
S5	8	"3657449"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:12
S6	5	"3538225"	US-PGPUB; USPAT	·OR	ON	2007/04/05 13:13
S7	48	"3917592"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
S8	7	"4032573"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:13
S9	6	"4194008"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:14
S10	24	"5223526"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:15
S11	12	"5416103"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
S12	30	"5438070"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
S13	9	"5633218"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:16
S14	1	"5914344"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:17
S15	8	"5922732"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
S16	6	"5965744"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
S17	1	"5965774"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:21
S18	8	"5968947"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22

# **EAST Search History**

S19	4	"6093726"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
S20	3	"6174894"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
S21	5	"6177442"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:22
S22	3	"6207676"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
S23	4	"6291474"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
S24	3	"6391883"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:23
S25	2	"6573275"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:24
S26	1	"20020061913"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:24
S27	2	"20040082572"	US-PGPUB; USPAT	OR	ON	2007/04/05 13:25
S28	. 2	"20050119130"	US-PGPUB; USPAT	OR	ON	2007/04/05 15:11
S29	305	549/14;514/433.ccls.	US-PGPUB; USPAT	OR	ON	2007/04/05 15:11
S30	323	549/14;514/433.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR .	ON	2007/04/05 15:11

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TOTAL SINCE FILE SESSION ENTRY

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495.33 147.42

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

TOTAL SINCE FILE SESSION ENTRY

CA SUBSCRIBER PRICE

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```
chain nodes :
7 8 10 18 20 21 24
ring nodes :
1 2 3 4 5 6 9 11 12 13 14 15
chain bonds :
2-21 3-20 5-7 6-18 7-8 7-10 8-9 15-24
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 9-11 9-15 11-12 12-13 13-14 14-15
exact/norm bonds :
2-21 3-20 6-18 7-8 7-10 8-9 15-24
exact bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7
normalized bonds :
9-11 9-15 11-12 12-13 13-14 14-15
isolated ring systems :
containing 1:
```

G1:CH3,CF2,CF3,X,Cb

G2:H,CH3

G3:Cb,Ak

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 10:CLASS 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 18:CLASS 20:CLASS 21:CLASS 24:CLASS

STRUCTURE UPLOADED L9

=> d 19

L9 HAS NO ANSWERS

L9

STR

G1 Me, CF2, CF3, X, Cb

G2 H, Me

G3 Cb, Ak

Structure attributes must be viewed using STN Express query preparation.

=> s 19

SAMPLE SEARCH INITIATED 14:52:55 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED -

72 TO ITERATE

100.0% PROCESSED

72 ITERATIONS

13 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

931 TO 1949

PROJECTED ANSWERS:

44 TO 476

L10

13 SEA SSS SAM L9

=> s 19 full

FULL SEARCH INITIATED 14:53:02 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1621 TO ITERATE

100.0% PROCESSED

1621 ITERATIONS

395 ANSWERS

SEARCH TIME: 00.00.01

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 28 Sep 2006
ACCESSION NUMBER: 2006:1006168 HCAPLUS
DOCUMENT NUMBER: 145:377349

FOR TITLE: Preparation of carboxanilides as microbiocides
Walter, Harald: Corsi, Camilla: Ehrenfreund, Josef;
Lamberth, Clemens: Tobler, Hans
Syngenta Participations A.-G., Switz.
POCLUMENT TYPE: Patent

POCLUMENT TYPE: Patent

Patent English DOCUMENT TYPE: LANGUAGE:

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

. P.	ATENT	NO.			KIN	D	DATE			APPL	ICAT	ION .	NO.		D	ATE	
-						-											
w	WO 2006100039			A1		2006	0928	1	WO 2	006-	EP25	95		2	0060	321	
	W:	AE.	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	82,	CA,	CH,
		CN.	co.	CR.	CU,	cz.	DE,	DK,	DM,	DZ,	EC,	EΕ,	EG,	25,	FI,	GB,	GD,
		GE.	GH.	GM.	HR.	HU.	ID,	IL.	IN,	IS,	JP,	KE,	KG,	KM,	KN,	ΚP,	KR,
		KZ.	LC.	LK.	LR.	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
																	SE,
		SG.	SK.	SL.	SM,	SY.	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	υz,	VC,
					ZM,												
	RW:	AT.	BE.	BG.	CH.	CY.	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	ΗU,	IE,
	•	15.	IT.	LT.	LU.	LV.	MC,	NL,	PL,	PT,	RO,	SE,	51,	SK,	TR,	BF,	ВJ,
		CF.	CG.	CI.	CM.	GA.	GN,	GQ.	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,
		GM.	KE.	LS.	MW.	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
					RU,												
PRIORI	TY APP									EP 2	005-	6382			A 2	0050	323

OTHER SOURCE(S):

MARPAT 145:377349

Title compds, represented by the formula I (wherein R1 = (un)substituted alkyl, alkenyl or alkynyl; R2 = alkyl; R3 = H or halo; A =

substituted
pyrazol-4-yl, imidazol-3-yl, triazol-4-yl, etc.; and their tautomers,
lsomers or enantiomers thereof) were prepared as microbiocides. For
example, amidation of 1-methyl-3-trifluoromethyl-1H-pyrazole-4-carboxylic
acid with (3-tert-butyl-2-vinylphenyl)amine (preparation given) provided

II in 75% yield. Fungicidal formulations of I have been described, and their

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

910873-99-3 HCAPLUS
1,4-0xathin-3-carboxamide, 5,6-dihydro-N-[2-methyl-3-(1,1,3-trimethylbutyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

910874-00-9 RCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(2-methyl-3-(1,1,3,3-tetramethylbutyl)phenyl)-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

910874-01-0 HCAPLUS y.vov.r-v.ru n.cAFu03 1,4-Oxathin-3-carboxamide, N-{3-(1,1-dimethylethyl)-2-methylphenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 910874-02-1 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[3-(1,1-dimethylpropyl)-2-methylphenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) biol. activity against Brownrust on wheat, Powdery mildew on apple, and acc., were tested.

IT 910873-96-0P 910873-97-1P 910873-98-2P 910874-01-0P 910874-02-1P 910874-03-2P 910874-01-0P 910874-03-2P 910874-01-0F 910874-02-1P 910874-03-2P 910874-01-0F 910874-08-7P 910874-03-2P 910874-01-0P 910874-11-2P 910874-12-3P 910874-13-4P 910874-11-2P 910874-12-3P 910874-13-4P 910874-11-3P 910874-11-3P 910874-13-5P 910874-13-5P 910874-13-5P 910874-13-5P 910874-20-3P 910874-21-3P 910874-21-3P 910874-21-3P 910874-23-5P 910874-23-7P 910874-24-7P 910874-25-5P 910874-26-3P 910874-23-7P 910874-30-5P 910874-31-6P 910874-23-7P 910874-30-5P 910874-31-6P 9

(Uses)
(preparation of N-Ph heteroaryl carboxamides as microblocides)
910873-96-0 MCAPLUS
1,4-Oxathiin-3-carboxamide, N-{3-(1,1-dimethylethyl)-2-methylphenyl}-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

910873-97-1 HCAPLUS

RN 910873-97-1 HCAPLUS CC 1.4-Oxathiin-3-carboxamide, N-[3-{1,1-dimethylpropyl}-2-methylphenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

910873-98-2 HCAPLUS
1,4-0xathiin-3-carboxamide, 5,6-dihydro-N-{2-methyl-3-(1,1,2-trimethylpropyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

910874-03-2 HCAPLUS 1.4-0xathiin-3-carboxamida, 5,6-dihydro-2-methyl-N-[2-methyl-3-(1,1,2-trimethylpropyl]phenyl]- (9CI) (CA INDEX NAME)

910874-04-3 HCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-methyl-3-(1,1,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

910874-05-4 BCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-methyl-3-(1,1,3,3-terramethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

910874-06-5 HCAPLUS yauv.q-ue-o nt.neuus 1,4-Oxathiin-3-carboxamide, N-(3-(1,1-dimethylethyl)-2-ethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 910874-07-6 HCAPLUS
CN 1,4-Oxathian-3-carboxamide, N-(3-(1,1-dimethylpropyl)-2-ethylphenyl)-5,6dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

RN 910874-08-7 HCAPLUS
CN 1,4-Oxacthin-3-carboxamide, N-[2-ethyl-3-(1,1,2-trimethylpropyl)phenyl]5,6-dihydro-2-(trifluoromethyl)- [9C1] (CA INDEX NAME)

RN 910874-09-8 HCAPLUS
CN 1.4-Oxathin-3-carboxamide,
N-[2-ethyl-3-(1,1,3-trimethylbutyl)phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 910874-10-1 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-[2-ethyl-3-(1,1,3,3-tetramethylbutyl)phenyl}-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 910874-11-2 HCAPLUS

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on SIN (Continued)

RN 910874-16-7 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[3-(1,1-dimethylethyl)-2-propylphenyl]-5,6dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

RN 910874-17-8 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-(3-(1,1-damethylpropyl)-2-propylphenyl)-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 910974-18-9 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[3-(1,1-dimethylethyl)-2-propylphenyl}-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 910874-19-0 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-{3-(1,1-dimethylpropyl)-2-propylphenyl]-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME) L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN 1,4-Oxathiin-3-carboxamide, N-[3-(1,1-dimethylethyl)-2-ethylphenyl]-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 910874-12-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[3-(1,1-dimethylpropyl)-2-ethylphenyl]-5,6dihydro-2-methyl- [9CI) (CA INDEX NAME)

RN 910874-13-4 HCAPLUS
CN 1,4-oxathin-3-carboxamide, N-[2-ethyl-3-[1,1,2-trimethylpropyl)phenyl}
5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 910874-14-5 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-[2-ethyl-3-(1,1,3-trimethylbutyl)phenyl]-5,6dhydro-2-methyl- (9CI) (CA INDEX NAME)

RN 910874-15-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-[2-ethyl-3-[1,1,3,3-tetramethylbutyl)phenyl]5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 910874-20-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-(3-(1,1-dimethylechyl)-2-ethenylphenyl)-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 910874-21-4 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-[3-(1,1-dimethylpropyl)-2-ethenylphenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 910874-22-5 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-[2-ethenyl-3-(1,1,2-trimethylpropyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 910874-23-6 HCAPLUS
CN 1,4-0xathin-3-carboxamide, N-[2-ethenyl-3-(1,1,3-trimethylbutyl)phenyl]5,6-dhhydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 910874-24-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-{2-ethenyl-3-{1,1,3,3-tetramethylhutyl}phenyl}-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

CF3 0 H2C=CH Me C-CH2-CMe3

RN 910874-25-8 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[3-(1,1-dimethylethyl)-2-ethenylphenyl]-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

Me H₂C=CH Bu-t

RN 910874-26-9 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[3-(1,1-dimethylpropyl)-2-ethenylphenyl]-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

S 0 Me C-Et Me C-Et

RN 910874-27-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-[2-ethenyl-3-(1,1,2-trimethylpropyl)phenyl]5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER I OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

S 0 Me C-Et CF3 HC≡C Me

RN 910874-32-7 HCAPLUS
CN 1,4-Oxacthin-3-carboxamide,
N-(2-ethynyl-3-(1,1,2-trimethylpropyl)phenyl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

CF3 0 HC≡ C Me C-Pr-i

RN 910874-33-8 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[2-ethynyl-3-[1,1,3-trimethylbutyl)phenyl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

CF3 O HC C-Bu-i

RN 910874-34-9 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[2-ethynyl-3-(1,1,3,3tetramethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA
INDEX

RN 910874-35-0 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-{3-(1,1-dimethylethyl)-2-ethynylphenyl}-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME) L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

 $\begin{array}{c|c} \text{Me} & \text{H}_2\text{C} = \text{CH} & \text{Me} \\ \text{O} & \text{C} - \text{NH} & \text{C} - \text{P}_{\text{F}} - \text{i} \\ \text{Me} & \text{Me} \end{array}$ 

RN 910874-28-1 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[2-ethenyl-3-(1,1,3-trimethylbutyl)phenyl]5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

Me H₂C = CH Me C = Bu-i

RN 910874-29-2 HCAPLUS
CN 1,4-Oxethiin-3-carboxamide, N-{2-ethenyl-3-(1,1,3,3-tetramethylbutyljphenyl]-5,6-dihydro-2-methyl- (9Cl) (CA INDEX NAME)

Me H₂C=CH Me C-CH₂-CMe₃

RN 910874-30-5 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-[3-(1,1-dimethylethyl)-2-ethynylphenyl]-5,6dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

 $\begin{array}{c|c} & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\$ 

RN 910874-31-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-[3-(1,1-dimethylpropyl)-2-ethynylphenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Me O HC □ C Bu-t

RN 910874-37-2 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(3-(1,1-dimethylpropyl)-2-ethynylphenyl)-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

S | Me

RN 910874-19-4 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-(2-ethynyl-3-(1,1,2-trimethylpropyl)phenyl)5,6-dihydro-2-methyl-:(9CI) (CA INDEX NAME)

Me HC C-Pr-i

RN 910874-41-8 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-{2-ethynyl-3-{1,1,3-trimethylbutyl}phenyl}5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

Me HC C-Bu-

RN 910874-43-0 HCAPLUS CN 1,4-Oxachiin-3-carboxamide, N-[2-ethynyl-3-(1,1,3,3cetramethylbutyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME) L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

HCAPLUS NN 3100114-1 Inchrete
(N1 1,4-Oxathin-1-carboxamide,
N-[3-(1,1-dimethylethyl)-2-(1-prophynyl)phenyl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

910874-45-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[3-{1,1-dimethylpropyl}-2-{1-propynyl}phenyl}-5,6-dihydro-2-{trifluoromethyl}- {9CI} (CA INDEX NAME)

$$\begin{array}{c|c} S & 0 & Me \\ \hline 0 & C-NH & C-Et \\ \hline CF_3 & Me-C \equiv C & Me \\ \end{array}$$

910874-47-4 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-propynyl)-3-(1,1,3-trimethylbutyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

910874-52-1 HCAPLUS
1,4-0xathin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1-propynyl)-3-(1,1,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

910874-53-2 HCAPLUS
1,4-0xathian-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-(1-propynyl)-3-(1,1,3,3-terramethylbutyl)phenyl)- (9CI) (CA INDEX NAME)

7

REFERENCE COUNT:

FORMAT

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

L12 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

910874-48-5 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-propynyl)-3-(1,1,3,3-tetramethylbutyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 910874-49-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-[3-(1,1-dimethylethyl)-2-(1-propynyl)phenyl]5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

910874-50-9 HCAPLUS 1,4-Oxathin-3-carboxamide, N-[3-(1,1-dimethylpropyl)-2-(1-propynyl)phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

910874-51-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-{1-propynyl}-3-{1,1,2-trimethylpropyl)phenyl}- (9CI) (CA INDEX NAME)

ED Entered STN: 18 Aug 2005
ACCESSION NUMBER: 2005.611731 HCAPLUS
DOCUMENT NUMBER: 143:229543
Freparation of benzanilides and related compounds as microbicides
Dunkel, Raif: Elbe, Hans-Ludwig: Hartmann, Benoit; Greul, Joerg Nico: Ilg, Kerstin; Wachendorff-Neumann, Ulriske Dahmen, Peter: Kuck, Karl-Heinz
PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany
POCUMENT TYPE: Patent
LANGUAGE: German

LANGUAGE: German

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.										APPL	DATE						
WO 2005075411				Al			20050818			WO 2	20050122						
	W:	AE.	. AG.	AL.	AM,	AT.	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW.	BY,	ΒZ,	CA,	CH,
		CN.	CO.	CR.	cu.	cz.	DE.	DK,	DM,	DZ,	EC,	EE,	EG.	ES,	FI,	GB,	GD,
		GE.	GH.	GM.	BR.	HU.	ID,	IL.	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	ΚZ,	LC,
		LK.	LR.	LS.	LT.	LU.	LV,	MA.	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
		NO.	NZ.	OM.	PG.	PH.	PL,	PT.	RO.	RU,	sc,	SD,	SE,	SG,	sΚ,	SL,	SY,
		T.I	TM.	TN.	TR.	TT.	TZ,	UA.	UG.	US.	UZ.	VC,	VN,	YU,	ZA,	ZM,	2W
	ow.	RW.	GH.	GM.	KE.	LS.	MW,	MZ.	NA.	SD,	SL,	52,	TZ,	UG,	ZM,	ZW,	AM,
		A2.	BY.	KG.	. KZ.	MD.	RU,	TJ.	TM.	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE.	ES.	FI.	FR.	GB.	GR,	HU.	IE.	IS.	IT.	LT,	LU,	MC,	NL,	PL,	PT,
		RO.	SE.	SI.	SK.	TR.	BF,	BJ,	CF.	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,
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CA 2559396						2005	0818		CA 2	005-	2559	396		2	0050	122	
							2006	1107		en 2	006-	7011	16		2	0050	122

EP 1716099 A1 20061102 EP 2005-701115 20050122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, HC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
PRIORITY APPLM. INFO: DE 2004-102004005786A 20040206 WO 2005-EP608

MARPAT 143:229543 OTHER SOURCE(S):

=> fil reg

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
147.42
495.33

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL
ENTRY SESSION

CA SUBSCRIBER PRICE

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L12 ANSWER 2 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Title compds. I [R = H, halo; Rl = H, CH3; R2 = CH3, CH2CH3, haloalkyl, etc.; R3 = halo, haloalkyl, etc.; R4 = H, alkyl, alkylsulfinyl, etc.; M = (un)substituted Ph, pyridinyl, pyrisidinyl, etc.] were prepared for example. N-acylation of phenylamine II with 2-(trifluoromethyl)benzoyl chloride afforded benzanılide III 99% yield. In apple venturia

inaequalis publis
protection assays, 6-examples of compds. I at 100 g/ha (sic), exhibited
93-100% protection after 10-days.
862646-27-3P

ΙT 862646-27-3P RL: AGR (Agricultural use): BSU (Biological study, unclassified): SPN (Synchetic preparation): BIOL (Biological study): PREP (Preparation):

USES (Uses) (preparation of benzanilides and related compds. for controlling microorganisms) 862646-27-3 HCAPLUS 1,4-ORAthin-3-carboxamide, H-[4-chloro-2-[4,4,4-trifluoro-3-methylbutyl)phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME) (Uses)

RN CN

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
NNs, etc.; L1 = alkylene; L2 = bond, C0, etc.) are prepd. as bactericides and fungicides.
862090-43-95 862090-51-59 862092-85-59 862092-901-19 862092-99-19 862091-99-4P 862092-40-6P 862092-42-0P 862092-23-7P 862092-82-8P 862092-42-0P 862092-46-4P 862092-85-8P 862093-00-19 862093-56-7P 862093-56-9P 862093-66-1P 862093-70-7P RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation as bactericide and fungicide)
862090-43-5 HCAPLUS
1,4-0xathin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[1-[(1-methylethyl)sulfonyl]ethyl]phenyl]- (9CI) (CA INDEX NAME) ΙT

862090-51-5 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-{1-{(1-methylethyl)sulfonyl)ethyl)phenyl]-2-{trifluoromethyl}- (9CI) (CA INDEX NAME)

862090-85-5 HCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-H-[2-[1-{ (1-methyltchiolethyl)phenyl}-2-(trifluoromethyl)- (9CI) (CA INDEX

L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 18 Aug 2005 ACCESSION NUMBER: 12005:811644 HCAPLUS 100:UMENT NUMBER: 143:188299 TITLE: Preparation of Carboxamide deribactericides

Preparation of carboxamide derivatives as

and fungicides
Dunkel, Ralf: Elbe, Hans-Ludwig: Hartmann, Benoit:
Greul, Joerg Nico: Herrmann, Stefan:
Wachendorff-Neumann, Ulrike: Dahmen, Peter: Kuck. INVENTOR(S):

Wachendorff-Neumann, Ulriker Dahmen, Peter: Ku Karl-Heinz Bayer Cropscience Aktiengesellschaft, Germany PCT Int. Appl., 118 pp. CODEN: PIXXD2 Patent German PATENT ASSIGNEE(5): SOURCE:

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

				APPLICATION NO.							DATE						
	WO 2005074686												20050172				
WO 200507						20050818		WO .	2005-	EP63.	<b>,</b>		20030122				
W: A	E. AG,	AL,	.AM,	AT,	. AU,	ΑZ,	BA,	вв	, BG,	BR,	BW,	BY,	ВZ,	CA,	CH,		
c	N, CO,	CR.	CU,	CZ,	DE,	DK,	DM,	DZ	, EC,	EE,	EG,	ES,	FΙ,	GB,	GD,		
	E, GH,	GM.	HR.	HU.	ID.	IL,	IN,	IS	, JP,	KE,	KG,	ΚP,	KR,	ΚZ,	LC,		
ī	K, LR,	LS.	LT.	LU.	LV.	MA.	MD.	MG	. MK.	MON.	MW.	MX.	M2,	ΝA,	NI,		
-	O, NZ,	OM,	DG.	DH.	PT.	PT.	RO.	RU	. sc.	SD.	SE.	5G.	SK,	SL.	5Y,		
	J, TM,	Thi	TD,	T.	77	112	IIG,	115	117	VC.	VN.	YU.	ZA.	ZM.	ZW		
1	W, GH,			:::	Ma.	W7	NA.	en	81	57	72	uc	2.M	7W.	AM.		
RW: E	W, GH,	GM,	KE,	L3,	FIM,	176,	m.	20	, ,,,	00,	cu'	cv,	C 7	DF.	DK.		
Α	Z, BY,	KG,	KZ,	MD,	KU,	TJ,	TM.	W.	, 55,	ь,	Cn,	C1,		D.,			
E	E, ES,	FI,	FR,	GB,	GR,	нU,	IE.	15	, 1т,	LT,	LU,	MC,	NL,	PL,	P1,		
F	O, SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG	, CI,	CM,	GA,	GN,	GQ,	GW,	ML,		
<b>.</b>	R. NE.	SN.	TD.	TG													
DE 102004					2005	0825			2004-					0040			
CA 255607					2005	0818		CA	2005-	2556	<b>78</b>		- 7	0050	122		
CN 191776								CN	2005-	8000	4212		2	0050	122		
			_			~~~			2004~					0040			
PRIORITY APPLA	I. INFO	• •											•				
								CW	2005-	EP63	3		W 2	0050	1227		

OTHER SOURCE(S): MARPAT 143:188299

The carboxamides I [M = (un)substituted Ph, pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl or thiazoleyl A = (un)substituted Ph, pyrazolyl, pyridinyl, etc.; R = H, alkyl, alkoxylakyl, etc.; R 1 = H, alkyl, alkylsulfinyl, etc.; Q = O, S, SO, SO2.

L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

862090-99-1 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-{2-{{(1-methyl-thio]methyl}phenyl}-2-{trifluoromethyl}- (9CI) (CA INDEX NAME)

862091-99-4 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[1-[(1-methylpropyl)thio]ethyl]phenyl]- (9CI) (CA INDEX NAME)

862092-01-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[1-[(1-ethylbucyl)thio]ethyl]phenyl]- (SCI) (CA INDEX NAME)

ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) 862092-05-5 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-[(1-methylpropyl)thio]ethyl]phenyl}-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

862092-23-7 HCAPLUS
1,4-0xathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-{1-{(1-methylethyl)thio]ethyl}phenyl}- {9CI} (CA INDEX NAME)

862092-40-8 HCAPLUS 1,4-Oxathin-3-carboxamide, N-{2-(1-(cyclopentylthio)ethyl)phenyl}-5,6-dhydro-2-methyl- (9C1) (CA INDEX NAME)

862092-42-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[2-[1-(cyclopentylthio)ethyl]phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 862093-54-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-[2-[(ethylthio)methyl]phenyl]-5,6-dihydro-2methyl- (SCI) (CA INDEX NAME)

RN 862093-56-9 HCAPLUS
CN 1,4-CNathiin-3-carboxamide,
N-[2-[(ethylthio)methyl]-4-methoxyphenyl]-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

862093-66-1 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-{{(2-methylpropyl)thio|methyl|phenyl}- (9CI) {CA INDEX NAME}

862093-70-7 HCAPLUS
1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-[2-[[(2-methylpropyl)thio]methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on 5TN (Continued)

862092-46-4 HCAPLUS
1,4-0xathin-3-carboxemide, 5,6-dihydro-N-[2-[1-[[1-methy]butyl|thio|ethyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX

862052-82-8 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[1-(1-methylethoxy)ethyl]phenyl]- (9CI) (CA INDEX NAME)

862093-00-3 HCAPLUS 1,4-Owathin-3-carboxamide, 5,6-dihydro-N-[2-[1-(1-methylethoxy)ethyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

(Continued) L12 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

REFERENCE COUNT: THIS

THERE ARE 12 CITED REFERENCES AVAILABLE FOR

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

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10544897
L12 ANSWER 4 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN
ED Entered STN: 13 May 2005
ACCESSION NUMBER: 2005:409485 HCAPLUS
DOCUMENT NUMBER: 142:463762
TITLE: Preparation of pyrazolylcarboxanilides and related compounds as microbicides
INVENTOR(S): Elbe, Hans-Ludwig; Gebauer, Olaf; Greul, Joerg Nico;
Dahmen,
                                                     Peter: Kuck, Karl-Heinz
Bayer Cropscience Aktiengesellschaft, Germany;
 PATENT ASSIGNEE(S):
 Dunkel,
                                                     PCT Int. Appl., 83 pp.
CODEN: PIXXD2
Patent
 SOURCE:
 DOCUMENT TYPE:
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                                     German
                                                                                                                                             DATE
           DATENT NO
                                                                                            APPLICATION NO.
                                                      KIND
                                                                 DATE
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PA	PATENT NO.						KIND DATE											
							B1 20050512			WO 2004-EP11397								
wo	2005	0424	93		- A1		AU,	77	D 7		80	80	SW.	RY	B 7	CA.	CH.	
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	A2,	DA,	DD,	BG,	DR,	D#,	DI,	ET.	GB.	GD,	
		CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	02,	EC,	CE,	EG,	63,	LI,	V2	10	
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		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	mx,	MZ,	NA.	ur,	
		NO,	NZ,	OM,	₽G,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	36,	SK,	5 L,	31,	
		ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VE,	VN,	10,	ZA,	2M,	2 N	
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	ΜZ,	NA,	5D,	SL,	52,	TZ,	uG,	ΖМ,	ZW,	An,	
		ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ŦJ.	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
		EE,	ES,	FI,	FR,	GB,	GR,	ΗU,	IE,	IT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	
		SI,	SK,	TR,	EF,	ВJ,	CF,	ÇG,	CI,	CM,	GΑ,	GN,	GΩ,	GW,	ML,	MR,	NE,	
		SN,	TD,															
DE	DE 10352082					20050525 DE 2003-10352082 20070112 IN 2004-DE1799												
IN	2004	DE01	799		A		2007	0112		IN 2	004-	DE 17	99			0040		
AU	2004	2856	35		A1		2005	0512		AU 2	004-	2856	35		2	0041	012	
CA	2543	052			A1		2005	0512		CA 2	004-	2543	052		2	0041	012	
£Ρ	1678	142			A1		2006	0712		EP 2	004-	7902	93		2	0041	012	
	R:	AŤ.	BE.	CH.	DE,	DK.	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
		IE.	SI.	FI.	RO.	CY	TR,	BG,	CZ,	EE,	HU,	PL,	SK					
CN	1871	219			A		2006	1129		CN 2	004-	8003	1204			0041		
RD.	2004	0154	62		A		2006	1219		8R"Z	004-	1546	<del></del>		2	0041	012	
US	2007	0378	58		A1		2007	0215	ſ	US 2	006-	5762	43	)	2	0061	027	
	US 2007037858 RIORITY APPLN. INFO.:								<b>\</b> -	DE Z	003-	T034	9499	_	A 2	0031	023	
. KIONI	• /								-									
										DE 2	003-	1035	2082		A 2	0031	107	
										WO 2	004~	EP11	397		W 2	0041	012	
																-	_	

L12 ANSWER 4 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

MARPAT 142:463762

OTHER SOURCE(5):

851764-68-6 HCAPLUS 1,4-Oxachiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-(1,3,3-trimethylpentyl)phenyl|- (9C1) (CA INDEX NAME)

2

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 4 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

AB Title compds. I [A = substituted pyrazoles, thioles, pyridines, etc.: L = Ph, thioles with provisos; R3 = halo, alkyl, haloslkyl, etc.] were prepared for example, N-acylation of [2-(1,3,3-trimethylbutyl)phenyl]amine with acid chloride II afforded pyrazolylcarboxanilide III in 895 yield. In venturia apple protection assays, lo-examples of compds. I exhibited to be useful for the controlling of undesired microorganisms.

IT 851764-67-5P 851764-69-69 RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES

USES

(Uses)

(Uses)
(preparation of pyrazolylcarboxanilides and related compds. as microbicides)
RN 851764-67-5 HCAPLUS
CN 1,4-0xathin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

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E12 ANSWER 5 OF 51 MCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 13 May 2005
ACCESSION NUMBER: 2005:409484 HCAPLUS
DCCUMENT NUMBER: 142:463761
Freparation of pyrazolylcarboxanilides and related compounds as microbicide agents
Dunkel, Raif; Elbe, Hans-Ludwig; Greul, Joerg Nico: Hartmann, Benoit; Wachendorff-Neumann, Ulrike;
                                                                                              Peter: Kuck, Karl-Heinz
Bayer Cropscience Aktiengesellschaft, Germany
PCT Int. Appl., 84 pp.
CODEN: PIXXD2
Patent
German
 Dahmen,
   PATENT ASSIGNEE(S):
SOURCE:
   DOCUMENT TYPE:
  LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                     PATENT NO.
                                                                                                                         DATE
                                                                                                                                                                      APPLICATION NO.
                                                                                                                                                                                                                                                            DATE
                                                                                             A1 20050512 M0 2004-EP11394 20041012
AM, AT, AU, AZ, BA, BB, BG, BR, BM, BY, BZ, CA, CH,
CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LT, LU, LV, MA, MD, MG, MK, MM, MM, MX, MZ, NA, NI,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW,
KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DZ, DK,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
                                                                                                                                                                                                                                                           20041012
                     WO 2005042492
                   WO 2005042492
W: AE, AG, AL, CN, CO, CR, GE, GH, CM, LR, LS, NO, NZ, OM, TJ, TM, TM, RW: BW, GH, GH, AZ, BY, KG, EE, ES, ISK, TR, SN, TD, TG
DE 10349502
AU 200428563
EP 1678141
R: AT, BE, CH,
                   SN, TD, TG

DE 10349502 Al 20050525 DE 2003-10349502
AU 2004285633 Al 20050512 AU 2004-285633
CA 2543050 Al 20050512 CA 2004-285633
EP 1678141 Al 20060712 EP 2004-765931
R: AT, BE, CH, DE, DK, ES, FR, GB, GA, IT, LI, LU, IE, SI, FR, RO, CY, TR, BG, CZ, EE, MU, PL, SK
CN 1871220 A 20061129 CN 2004-80031231
BR 2004015454 A 2006129 BR 2004-154544
RITY APPLN. INFO::

DE 2003-10349502
                                                                                                                                                                                                                                                             20031023
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                                                                                                                                                                                                                                       NL, SE, MC, PT.
                                                                                                                                                                                                                                                              20041012
                                                                                                                                                                                                                                                  20041012
A 20031023
   PRIORITY APPLN. INFO .:
                                                                                                                                                                        WO 2004-EP11394
                                                                                                                                                                                                                                                  W 20041012
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MARPAT 142:463761 OTHER SOURCE(5):

L12 ANSWER 5 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Title compds. I [A = substituted pyrazoles, thioles, pyridines, etc.; R1 H, alkyl, alkylsulfinyl, etc.; R2 = H, F, Cl, etc.] were prepared for example, N-acylation of 2-(1,3-dimethylbutyl)phenylamine with acid chloride II afforded pyrazolylcarboxanilide III in 70% yield. In apple protection assays, 12-examples of compds. I exhibited 88-100% efficiency at 100 g/ha (sic) application. Compds. I are claimed to be useful for the controlling of undesired microorganisms.
851755-21-2P

ΙT

851755-23-2P
RN: AGR (Agricultural use); BSU (Biological study, unclassified); SPN
(Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrazolylcarboxenilides and related compds. as microbicide

agents)
851755-23-2 HCAPLUS
1,4-Oxathin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl]-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

L12 ANSWER 6 OF 51 KCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 26 Aug 2004
ACCESSION NUMBER: 2004:696341 HCAPLUS
DOCUMENT NUMBER: 141:225520
DOCUMENT TYPE: Dunkel, Ralf; Elbe, Hans-Ludwig; Rieck, Heiko; Greul, Nico Joerg; Wachendorff-Neumann, Ulrike; Dahmen, Peter; Kuck, Karl-heinz; Hartmann, Benoit
Bayer Cropscience Aktiengesellschaft, Germany
CODEN PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German

APPLICATION NO. PATENT NO. KIND DATE DE 2003-10321270 A 20030513

WO 2004-EP1053 A 20040205

OTHER SOURCE(5): MARPAT 141:225520 L12 ANSWER 5 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

$$R^{1}$$
 $R^{2}$ 
 $R^{3}$ 
 $R^{3}$ 
 $R^{3}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{5}$ 
 $R^{6}$ 
 $R^{7}$ 
 $R^{7$ 

Title compds. IE[G1 = halo, CF3, CHF2, cycloproply; G2, G3 = H, CH3; R1, R2, R3, R4 = H, F, C1, CH3, etc.; R5 = H, alkyl, alkylsulfinyl, etc.; Z = Z1, Z2, Z3, Z4; Z1 = (un)substituted phenyl; Z2 = (un)substituted cycloalkyl, bicycloalkyl; Z3 = (un)substituted alkyl, cycloalkyl; Z4 = (un)substituted cycloalkyl, alkenyl, alkynyl, etc.; X = (O)n; n = 0-2) and their pharmaceutically acceptable salts were prepared for example, ling

(un)substituted cycloalky, alkenyl, alkynyl, etc.: X = (Oln: n= 0-2) and their pharmacoutically acceptable salts were prepared For example, coupling
of 2'-aminobiphenyl-4-carbaldehyde-O-methyloxime and oxathienylcarboxylic acid II, e.g., prepared from
ethyl-2-chloro-3-keto-4, 4, 4-trifluorobutyrate
in 3-steps, afforded oxathienylcarboxamide III in 21% yield. In venturia apple protection assays, 8-examples of compds. 1 exhibited 100% efficiency
at 100 g/m (sic) application.
746624-50-09 746624-51-1P 746624-52-2P
746624-50-09 746624-51-1P 746624-55-5P
746624-53-99 746624-54-4P 746624-55-5P
746624-63-59 746624-60-2P 746624-63-8P
746624-63-59 746624-60-2P 746624-68-0P
746624-63-59 746624-67-9P 746624-68-0P
746624-78-2P 746624-78-1P 746624-15-5P
746624-78-2P 746624-79-3P 746624-11-5P
746624-78-2P 746624-79-3P 746624-79-1P
746624-80-0P 746624-80-4P 746624-80-4P
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746625-01-5P 746625-01-8P 746625-01-8P

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

III

L12 ANSWER 6 OF S1 HCAPLUS COPYRIGHT 2007 AC5 on STN (Continued)
746623-14-9P 746625-15-0P 746625-16-1P
746625-17-2P 746625-13-9P 746625-19-4P
746625-20-7P 746625-21-8P 746625-22-9P
746625-23-0P 746625-24-1P 746625-22-2P
746623-26-3P 746625-27-4P 746625-28-5P
746637-92-3P 746637-99-1P 746637-99-1P
746637-92-3P 746637-94-5P 746637-95-6P
746637-90-P 746637-94-5P 746638-09-9P
746638-02-8P 746638-00-6P 746638-01-7P
746638-02-8P 746638-03-9P 746638-07-3P
746638-03-4P 746638-03-5P 746638-10-8P
746638-11-9P 746638-09-5P 746638-10-8P
746638-11-9P 746638-19-1P
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN
(Synthetic preparation); BIOL (Biological study); PREP (Preparation);
USES (Uses)
(prepr. of oxathienylcarboxamides as microbicide agents.)
746624-50-0 HCAPLUS
1,4-0xathin-3-carboxamide,
dihydro-N-[4'-{(methoxyimino)methyl}{1,1'biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-51-1 RCAPLUS 1,4-0xathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-{2-(1,3,3-trimethylbutyl)phenyl]- (SCI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746624-54-4 HCAPLUS 1,4-Oxathina-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-55-5 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(3',4'-dichloro(1,1'-biphenyl]-2-yl)-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

RN 746624-52-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-[2-(1,3-dimethylburyl)phenyl]-5,6-dihydro-5methyl-2-{trifluoromethyl}-- (9CI) (CA INDEX NAME)

RN 746624-53-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-[2[1,3,3-trimethylbutyl)phenyl}- (9CI) :CA INDEX NAME)

(Continued) L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

746624-56-6 HCAPLUS
1,4-Oxathin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX

746624-57-7 HCAPLUS
1,4-Oxathin-3-carboxamide, 5,6-dihydro-5-methyl-N-[4'-[[[1-methylathoxy]imino]methyl][1,1'-biphenyl]-2-yl]-2-{trifluoromethyl} (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

1-640-M=CH

RN 746624-58-8 RCAPLUS
CN 1,4-Oxathin-3-carboxamide,
5,6-dihydro-5-methyl)-2-(trifluoromethyl)-N-[4'(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

RN 746624-59-9 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(2-cycloheptylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-60-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 746624-66-8 HCAPLUS
CN 1,4-omathin-3-carboxamide, N-(3',4'-dichlore-5-fluoro[1,1'-biphenyl]-2-y1)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-67-9 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-68-0 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro(1,1'-biphenyl)-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-69-1 HCAPLUS

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 746624-62-4 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(2-cyclohexy1-4-fluoropheny1)-5,6-dihydro-2-(trifluoromethy1)- (9CI) (CA INDEX NAME)

RN 746624-63-5 HCAPLUS
CN 1,4-Oxathiin-3-carboxanide,
N-(4-chloro-2-cyclohexylphenyl)-5,6-dihydro-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-64-6 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(2-bicyclo{2.2.1}hept-2-ylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA IMDEX NAME)

RN 746624-65-7 MCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclooctylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (SCI) (CA INDEX NAME)

L12 -ANSMER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[4'(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

RN 746624-70-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[[(1-methyl)thoxy)]mino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)(9CI)
(CA INDEX NAME)

RN 746624-71-5 HCAPLUS CN 1.4-Oxathin-3-carboxamide, 5.6-dihydro-H-(4'-([propoxyimino)methyl)[1,1'biphenyl)-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-72-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(4'-chloro-3'-fluoro(1,1'-biphenyl)-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 CF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-73-7 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(3'-chloro-4'-fluoro[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-74-8 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[{propoxyimino}methyl]{1,1'-biphenyl]-2-yl}-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-75-9 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(4'-chloro-2'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-79-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-y-]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-80-6 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[2-(2-cyclohexyl-1-methylethyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-81-7 HCAPLUS
CN 1,4-Oxacthin-3-carboxamide, N-(3',5'-difluoro[1,1'-biphenyl]-2-yl)-5,6dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-76-0 HCAPLUS CN 1,4-Oxathiin-3-carboxemide,
N-(4'-bromo(),1'-biphenyl]-2-yl)-5,6-dihydro-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-77-1 HCAPLUS CN 1,4-Oxachiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-78-2 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- [9C1) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-82-8 HCAPLUS CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(4'-iodo(1,1'-biphenyl)-2-yl)-2-(crifluoromethyl)- (GA INDEX NAME)

RN 746624-83-9 HCAPLUS CN 1.4-Oxathin-3-carboxamide, 5.6-dihydro-n-[2-(1-methyl-3-butenyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-84-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(4'-fluoro-3'-methyl{1,1'-biphenyl}-2-yl)5,6-dihydro-2-(trifluoromethyl)- (SC1) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-85-1 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-methyl{1,1'-biphenyl}-2-yl}5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-86-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
N-[2-(2-cyclopentyl-1-methylethyl)phenyl]-5,6dinydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-87-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl}5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 746624-91-9 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylnonyl)phenyl]-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-92-0 HCAPLUS CN 1.4-Oxathin-3-carboxamide, N-(4'-bromo-2'-fluoro[1.1'-biphenyl]-2-yl)-5,6dinydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-93-1 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(3'-chloro-5'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME) L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-88-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-{2-(1-methylbuty1)pheny1}-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

RN 746624-89-5 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-[4'-[1-[(2-propynyloxy)inino]ethyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

. . L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-94-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[3'-chloro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX MAME)

RN 746624-95-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-96-4 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylhexyl)phenyl]-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-97-5 HCAPLUS
CN 1.4-Oxathiin-3-carboxamide,
N-[2-(1-cyclohexylethyl)phenyl]-5,6-dihydro-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-98-6 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[2-(1,3-dimethylbutyl)-4-fluorophenyl}-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-99-7 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-[2-(1-ethylpropyl)phenyl]-5,6-dihydro-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-00-3 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-[4-fluoro-2-(1-methylbutyl)phenyl]-5,6-

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-04-7 HCAPLUS CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-[4'-[1-(methoxyimino|propyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI)

(CA INDEX NAME)

RN 746625-05-8 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide,
N-(4'-bromo-3'-fluoro[1,1'-biphenyl]-2-yl)-5,6dihydro-2-(trifluoromethyl)- [9CI] (CA INDEX NAME)

RN 746625-06-9 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2-(1,3,3-trimethylphenyl))phenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-01-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[3'-chloro-4'-(trifluoromethyl){1,1'-biphenyl}-2-yl}-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-02-5 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[2-(1,3-dimethylpentyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-03-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[2-(2-(2,2-dichlorocyclopropyl)-1-methylethyl]phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-07-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6dihydro-6-methyl-2-(trifluoromethyl)- (SCI) (CA INDEX NAME)

RN 746625-10-5 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
5,6-dihydro-N-(4'-([methoxyimino]methyl]{1,1'- .
biphenyl]-2-yl]-6-methyl-2-{trifluoromethyl}- (9CI) (CA INDEX NAME)

RN 746625-12-7 HCAPLUS
CN 1.4-Oxathian-3-carboxamide, 5.6-dihydro-6-methyl-N-[4'-[[(1-methyl)imino]methyl](1.1'-biphenyl]-2-yl]-2-(trifluoromethyl)(9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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746625-13-8 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(3',4'-dichloro(1,1'-biphenyl]-2-yl)-5,6-dibydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746625-14-9 HCAPLUS
1,4-0xathiin-3-carboxamide,
dihydro-6-methyl-2-(trifluoromethyl)-N-[2{1,3,3-trimethylbutyl}phenyl]- (9CI) (CA INDEX NAME)

746625-15-0 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746625-19-4 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)-(SCI) (CA INDEX NAME)

746625-20-7 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-[2'-chloro-4'-{(methoxyimino)methyl){1,1'-biphenyl|-2-y\]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA IMDEX NAME)

746625-21-8 HCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(3',5,5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CR INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

746625-16-1 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-{3'-fluoro-4'-[{propoxyimino}methyl][1,1'-biphenyl]-2-yl}-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746625-17-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl)-2-yl)5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746625-18-3 HCAPLUS 1,4-Oxachiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

(Continued) L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

746625-22-9 HCAPLUS
1,4-0xathin-3-carboxamide, 5,6-dihydro-N-(3,3',5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746625-23-0 HCAPLUS
1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(3',4,5'-trifluoro(1,1'-biphenyl]-2-yll-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746625-24-1 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(2-hexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-25-2 HCAPLUS
CN 1,4-OxaChin-3-carboxamide, N-{2-(1-ethylbutyl)phenyl}-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-26-3 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(4'-cyano[1,1'-b]phenyl]-2-yl]-5,6-dihydro-2-(crifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-27-4 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(2',4'-dichloro[1,1'-biphenyl]-2-yl}-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746637-91-2 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, 2-(difluoromethyl)-5,6-dihydro-N-[2-(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

RN 746637-92-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, 2-(difluoromethyl)-N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-(9CI) (CA INDEX NAME)

RN 746637-94-5 HCAPLUS CN 1,4-Oxathin-3-carboxamido, N-(3',4'-dichloro(1,1'-biphenyl]-2-yl)-2-(diflucomethyl)-5,6-dihydro- (SCI) (CA INDEX NAME) L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-28-5 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
2-cyclopropyl-M-(3',4'-dichloro[1,1'-biphenyl]2-yl)-5,6-dihydro-(9CI) (CA INDEX NAME)

RN 746637-89-8 HCAPLUS
CN 1,4-Oxathian-3-carboxamide,
5,6-dihydro-6-methyl-2-(trifluoromethyl)-N-[4'(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

RN 746637-90-1 HCAPLUS CN 1,4-0xathiin-3-carboxamide, N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-6methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746637-95-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 2-(difluoromethyl)-N-[3'-fluoro-4'[(propoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro- (9CI) (CA INDEX NAME)

RN 746637-96-7 HCAPLUS
CN 1.4-Oxathin-3-carboxamide, 5,6-dihydro-H-[2-(3-methyl-1-propylbutyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746637-97-8 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-{2-(1-ethyl-3-methylbutyl)phenyl}-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746637-98-9 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[2-(1,3-dimethyl-3-butenyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746637-99-0 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide.
N-{2-(1,3-dimethylbutyl)phenyl}-5,6-dihydro-2(trifluoromethyl)-,4,4-dioxide (9CI) (CA INDEX NAME)

RN 746638-00-6 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-(4'-bromo[1,1'-biphenyl]-2-yl)-5,6-dihydro-2(trifluoromethyl)-, 4,4-dioxide (9C1) (CA INDEX NAME)

RN 746638-01-7 HCAPLUS CN 1,4-Oxachiin-3-carboxamide, N-(4'-chloro-2'-methyl{1,1'-biphenyl}-2-yl)-5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746638-05-1 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-[2-(2-cyclopropyl-1-methylethyl)phenyl]-5,6dinydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

RN 746638-06-2 HCAPLUS
CN 1,4-Oxathian-3-carboxamide, N-[2-(3,3-dimethyl-1-butynyl)phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746638-07-3 HCAPLUS
CN 1,4-0xathiin-3-carboxamide,
N-(4'-bromo-3'-methyl[1,1'-biphenyl]-2-yl)-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746638-02-8 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

RN 746638-03-9 HCAPLUS
CN 1,4-0xathin-3-carboxamide,
N-{2-(1,2-dimethylbutyl)phenyl]-5,6-dihydro-2{trifluoromethyl}-,4,4-dioxide(9CI) (CA INDEX NAME)

RN 746638-04-0 HCAPLUS
CN 1,4-oxathiin-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)-, 4,4-dioxide (9CI) (CA IMDEX NAME)

L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746638-08-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-acetyl-N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746638-09-5 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, 5,6-dihydro-N-[4'-[2,2,2-trifluoro-1(methoxyimino)ethyl)[1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA

RN 746638-10-8 HCAPLUS
CN 1,4-Oxathian-3-carboxamide,
N-{2-{2,2-dichloro-1-methylcyclopropyl}phenyl}5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-53-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-[2(1,3,3-trimethylbutyl)phenyl)- (9CI) (CA INDEX NAME)

RN 746624-54-4 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(4'-fluoro-3'-methyl(1,1'-biphenyl)-2-yl)5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-57-7 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-5-methyl-N-[4'-[[(1-methylethoxy) mino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)

(9CI) (CA INDEX NAME)

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RN 746624-58-8 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
5,6-dihydro-5-methyl-2-(trifluoromethyl)-N-[4'(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-55-5 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide; N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-5-mathyl-2-(trifluoromethyl)- (9CI)- (CA INDEX NAME)

RN 746624-56-6 HCAPLUS
(N 1,4-Oxathiin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-5-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-59-9 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(2-cycloheptylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-60-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-62-4 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexyl-4-fluorophenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN RN 746624-63-5 HCAPLUS CN 1,4-oxathiin-3-carboxamide, N-(4-chloro-2-cyclohexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME) (Continued)

746624-64-6 HCAPLUS
1,4-0xathiin-J-carboxamide, N-{2-bicyclo{2.2.1}hept-2-ylphenyl}-5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

746624-65-7 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-{2-cyclooctylphenyl}-5,6-dihydro-2-{trifluoromethyl}- (9CI) {CA INDEX NAME}

746624-66-8 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- [9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746624-70-4 HCAPLUS
1,4-OXathiin-3-carboxamide, 5,6-dihydro-N-[4'-[[[1-methylethoxy]imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)-(9CI) (CA INDEX NAME)

RN 746624-71-5 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-N-[4'-[dpropoxyimino)methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-72-6 HCAPLUS 1,4-Oxathian-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-67-9 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-68-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-{3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- {9CI} (CA INDEX NAME)

746624-69-1 HCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746624-73-7 HCAPLUS
1,4-Oxachiin-3-carboxamide, N-(3'-chloro-4'-fluoro[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-74-8 RCAPLUS 1,4-0xathin-3-carboxamide, N-(3'-fluoro-4'-[(propoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746624-75-9 HCAPLUS
1,4-Oxachiin-3-carboxamide, N-(4'-chloro-2'-methyl{1,1'-biphenyl}-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-76-0 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(4'-bromo(1,1'-bipheny1]-2-y1)-5,6-dihydro-2-(trifluoromethy1)- (9CI) (CA INDEX NAME)

RN 746624-77-1 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-78-2 HCAPLUS
CN 1.4-Oxathin-3-carboxamide, N-{3'-fluoro-4'-(trifluoromethyl){1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-82-8 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-N-(4'-iodo[1,1'-biphenyl]-2-yl)-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-83-9 HCAPLUS CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-[2-(1-methyl-3-butenyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-84-0 HCAPLUS
CN 1,4-Oxachin-3-carboxamids, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9Cf) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-79-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-80-6 HCAPLUS CN 1,4-Oxathian-3-carboxamide, N-[2-(2-cyclohexyl-1-methylethyl)phenyl]-5,6dihydro-2-(trifluoromethyl)- (SCI) (CA INDEX NAME)

RN 746624-81-7 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(3',5'-difluoro(1,1'-biphenyl]-2-yl)-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-85-1 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(crifluoromethyl)- (9C1) (CA INDEX NAME)

RN 746624-86-2 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-[2-(2-cyclopentyl-1-methylethyl)phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-B7-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(3'-chloro-4'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-88-4 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylbutyl)phenyl]-2(trifluoromethyl)- (SCI) (CA INDEX NAME)

RN 746624-89-5 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-{4'-{1-{(2propynyloxy)imino]ethyl}{1,1'-biphenyl}-2-yl}-2-(trifluoromethyl)- (9CI)
(CA INDEX NAME)

RN 746624-90-8 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-{4'[imino(methoxyamino)methyl]{1,1'-biphenyl}-2-yl}-2-(trifluoromethyl)(9C1) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-94-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[3'-chloro-4'-[1-(methoxyimino)ethyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-95-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-{3'-fluoro-4'-[1-(methoxymino)ethyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-96-4 HCAPLUS CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylhexyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME) L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-91-9 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylnonyl)phenyl]-2-(trifluoromethyl)- (9C1) (CA INDEX NAME)

RN 746624-92-0 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-(4'-bromo-2'-fluorof[1,1'-biphenyl]-2-yl)-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-93-1 HCAPLUS CN 1.4-Oxathin-3-carboxamide, N-(3'-chloro-5'-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF. 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746624-97-5 HCAPLUS
CN 1,4-Oxathin-3-carboxanide,
N-[2-(1-cyclohexylethyl)phenyl]-5,6-dihydro-2(trifluoromethyl) (9CI) (CA INDEX NAME)

RN 746624-98-6. HCAPLUS. N. N. N. (2-(1,3-dimethylbutyl)-4-fluorophenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746624-99-7 HCAPLUS CN 1,4-Oxathizn-3-carboxamide, N-[2-(1-ethylpropyl)phenyl)-5,6-dihydro-2-(trifluoromethyl)- (9c1) (CA INDEX NAME)

RN 746625-00-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[4-fluoro-2-(1-methylbutyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 746625-01-4 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-{3'-chloro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- {9C1} (CA INDEX NAME)

RN 746625-02-5 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-[2-(1,3-dinethylpentyl)phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-03-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[2-[2-(2,2-dichlorocyclopropyl)-1-methylethyl]phenyl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-07-0 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(2-bicyclo[2.2.1]hept-2-ylphenyl)-5,6dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-10-5 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-N-[4'-[(methoxyimino)methyl][1,1'biphenyl]-2-yl]-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

(CA INDEX NAME)

RN 746625-12-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-6-methyl-N-[4'-[[(1-methylethoxy)imino]methyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)-

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-04-7 HCAPLUS
CN 1,4-0xathiin-3-carboxamide, 5,6-dihydro-N-[4'-[1[methoxyimino]propyl][1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI)

(CA

RN 746625-05-8 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
N-(4'-bromo-3'-fluoromethyl)-2-yl)-5,6dinydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-06-9 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-{2-(1,3,3-trimethylpentyl)phenyl}- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Cont

RN 746625-13-8 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5.6-dihydro-6-methyl)-2-(trifluoromethyl)- (9Cl) (CA INDEX NAME)

RN 746625-14-9 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
5,6-dihydro-6-methyl-2-(trifluoromethyl)-N-[2(1,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

RN 746625-15-0 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-16-1 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-{3'-fluoro-4'-{(propoxyimino)methyl][1,1'-biphenyl}-2-yl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX

RN 746625-17-2 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, N-(3'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-18-3 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl)5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-22-9 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(3,3',5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-23-0 HCAPLUS CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-(3',4,5'-trifluoro[1,1'-biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-24-1 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2-hexylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-19-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-{3'-fluoro-4'-(trifluoromethyl)[1,1'-biphenyl)-2-yl)-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX

RN 746625-20-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[2'-chloro-4'-[(methoxyimino)methyl][1,1'-biphenyl]-2-yl]-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

MeO-

RN 746625-21-8 HCAPLUS CN 1,4-Okathin-3-carboxamide, 5,6-dihydro-N-(3',5,5'-trifluoro[1,1'-biphenyl]-2-yl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 746625-25-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[2-(1-ethylbutyl)phenyl}-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-26-3 HCAPLUS CN 1.4-oxathin-3-carboxamide,... N-(4'-cyano[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-27-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 746625-28-5 HCAPLUS

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN CN 1,4-Oxathin-3-carboxamide, 2-cyclopropyl-N-(3',4'-dichloro(1,1'-biphenyl]-2-yl)-5,6-dihydro-(9CI) (CA INDEX NAME) (Continued)

746637-89-8 HCAPLUS
1,4-0xathiin-3-carboxamide,
-dihydro-6-methyl-2-(trifluoromethyl)-N-(4'(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

746637-90-1 HCAPLUS CN 1,4-0xathin-3-carboxamide, N-[2-(1,3-dimethylbutyl)phenyl]-5,6-dihydro-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Title compds. (I; R = H, alkyl, haloalkyl; Z = alkenyl, alkynyl, haloalkenyl, haloalkynyl; X, Y = halo, cyano, NO2, alkyl, alkoxy, alkylthio, haloalkyl, haloalkoxy, haloalkylthio; m, n = 0-4; A = 5-6 membered substituted heterocyclyl], were prepared Thus, 2'-amino-1,1'-biphenyl-4-carbaldehyde O-allyloxime (preparation given)

Tappen, 1-1 - Applen, 1-1-calculating 0 o alignories (peparation gaven) Stall was treated with 4-diffuoromethyl-2-methylthizole-5-carbonyl chloride in phie at room temperature followed by stirring for 3 h at 50° to give 49.68 N-(4'-[(E]-((allyloxylimino)methyl)-1.1'-biphenyl-2-yl)-4-((diffuoromethyl)-2-methyl-1.3-thizole-5-carboxamide. The latter at 100 ppm gave 100% control of Venturia linaequalis. 705944-88-59 705944-88-59 REL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); and Et3N

{Uses} (Juse)
(preparation of biphenylcarboxamides as agricultural fungicides and insecticides)
RN 705944-48-5 MCAPUUS
CN 1,4-Oxathin-3-carboxamide,
N-[4'-[1-[(cyclopropylmethoxy)imino]ethyl][1,1
'-biphenyl]-2-yl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

705944-84-9 HCAPLUS
1,4-0xathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-[1-[(2-propenyloxy) mino]ethyl][1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 24 Jun 2004 ACCESSION NUMBER: 2004:509994 HCAPLUS

2004:509994 HCAPLUS 141:54333

141:54333
Preparation of biphenylcarboxamides as agricultural fungicides and insecticides
Dunkel, Ralf, Elbe, Hans-Ludwag; Rieck, Heiko; Greul,
Joerg Nico; Wachendorff-Neumann, Ulriske;
Mauler-Machnik, Astrid; Dahmen, Peter; Kuck,
Karl-Heinz; Loesel, Peter
Bayer Cropscience AG, Germany
Ger. Offen., 70 pp.
CODEN: GWXXBX
Patent
German
I INVENTOR(S):

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO. DATE KIND DATE APPLICATION NO. DE 10259314 A1 20040624 DE 2002-10258314 20021213
W: AE, AG, AL, AN, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CG, CG, GH, GM, HR, HU, ID, II, IN, IS, JP, KE, EG, ES, FI, GB, GD, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MC, NI, ND, NZ, MM, DZ, EC, EE, SE, SE, SE, TI, GB, GD, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MM, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BM, GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZM, AM, AZ, BT, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GM, ML, MR, NE, SN, TD,

AU 2003298156 A1 20040709 AU 2003-298156 20031201

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

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RITY APPLN. INFO:: DE 2002-10258314 A 20021213 TG

PRIORITY APPLN. INFO .:

WO 2003-EP13498 w 20031201

OTHER SOURCE(S): MARPAT 141:54333

L12 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

(Continued)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 07 Dec 2003

ACCESSION NUMBER: 2003:951013 HCAPLUS

DOCUMENT NUMBER: 140:5055

TITLE: Preparation of oxathincarboxamides as agricultural

Preparation of oxathiincarboxamides as agricultural fungicides bunkel, Ralf; Elbe, Hans-ludwig; Rieck, Heiko; Dunkel, Ralf; Elbe, Hans-ludwig; Wachendorff-Neumann, Ulrike; Mauler-Machnik, Astrid; Kuck, Karl-Heinz Bayer CropScience AG, Germany PCT Int. Appl., 68 pp. CODEN: PIXXD2 Patent

INVENTOR(S):

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: LANGUAGE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

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		GM.	HR.	KU.	ID.	IL.	IN.	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,
		LS.	LT.	LU.	LV.	MA.	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,
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	pw.	GH,	GM.	KE.	LS.	MW.	MZ.	SD.	SL.	52.	TZ.	UG.	ZM.	ZW,	AM,	AZ,	BY,
		KG.	KZ.	MD.	RU.	TJ.	TM.	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI.	FR.	GB.	GR.	HU.	IE.	IT.	LU,	MC.	NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF	B.T	CF	CG.	CT.	CM.	GA.	GN.	GO.	GW.	ML.	MR.	NE.	SN,	TD.	TG
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OTHER SOURCE(5):

MARPAT 140:5055

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'(trifluoromethoxy)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

627105-80-0 HCAPLUS 1,4-0Axthin-3-cerboxamide, 5,6-dihydro-2-methyl-N-[4'-(methylthio)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

627105-81-1 HCAPLUS

1,4-0xathiin-3-carboxamide,
[4'-bromo[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-methyl- [9CI] (CA INDEX NAME)

627105-82-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

Title compds. [I: Rl = F; m = 0-2; R = (substituted) Ph], were prepared Thus, a suspension of KZCO3 in MeCN was dropwise treated with 4'-chloro-2'-fluoro-1,1'-biphenyl-2-amine and 2-methyl-5,6-dihydro-1,4-oxathiin-3-carbonyl chloride followed by stirring for 10 h to give 39% or the control of the control

oxathinn-3-carbonyl chloride followed by stirring for 10 h to give 39% N-(4'-chloro-2'-fluoro-1,1'-biphen-2-yl)-2-methyl-5,6-dihydro-1,4-oxathinn-3-carboxamide. The latter at 100 g/ha gave 100% control of Venturia inaequalis.

IT 627105-77-5P 627105-8-6P 627105-79-7P 627105-80-0P 627105-80-0P 627105-81-1P 627105-82-2P 627105-8-3P 627105-84-4P 627105-85-5P 627105-86-6P 627105-89-9P 627105-90-2P 627105-91-3P 627105-92-4P 627105-93-P 627105-91-9P 627105-92-4P 627105-93-P 627105-93-P 627105-91-P 627105-91-P 627105-91-P 627105-91-P 627105-91-P 627105-91-P 627105-91-P (27105-95-P) 627105-91-P (2

USES (Uses)

(USUS)
(preparation.of oxathiincarboxamides as agricultural fungicides)
627105-77-5 MCAPUUS
1,4-Oxathiin-3-carboxamide, N-(4'-chloro-2'-fluoro[1,1'-biphenyl]-2-yl)5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

627105-78-6 HCAPLUS
1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-[4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

627105-79-7 HCAPLUS

(Continued) L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

627105-84-4 HCAPLUS 1,4-Oxachiin-3-carboxamide, N-(4'-chloro-3'-fluoro[1,1'-biphenyl}-2-yl)-5,6-dihydro-2-methyl- (9C1) (CA INDEX NAME)

627105-85-5 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3'-chloro-4'-fluoro{1,1'-biphenyl}-2-yl)5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued

RN 627105-86-6 RCAPLUS
CN 1,4-0xathiin-3-carboxamide, N-(3',5'-dichloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-87-7 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(3',4'-difluoro[1,1'-biphenyl]-2-yl)-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-88-8 HCAPLUS
CN 1,4-Oxachin-3-cacboxamide, N-(4'-chloro-3'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-mathyl- (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 627105-92-4 HCAPLUS CN 1,4-0xathin-3-carboxamide, N-(4'-chloro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-93-5 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(2',4'-difluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-94-6 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-{4'-cyano[1,1'-biphenyl}-2-yl)-5,6-dihydro-2methyl- (9CI) (CA INDEX NAME) L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 627105-89-9 HCAPLUS

(N 1,4-Oxathiin-3-carboxamide, N-(3',4'-dichloro-5-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-90-2 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-(4'-chiero-3'-methyl[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-91-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxamids, N-(3',4'-dichloro-3-fluoro[1,1'-biphenyl]-2-yl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 627105-95-7 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3'-fluoro-4'-(trifluoromethyl){1,1'-biphenyl}-2-yl}-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-96-8 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, N-(4'-fluoro-3'-methyl[1,1'-biphenyl]-2-yl]5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

RN 627105-97-9 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, N-(2'-fluoro-4'-methyl[1,1'-biphenyl]-2-yl]5,6-dihydro-7_methyl- (9CI) (CA INDEX NAME)

RN 627105-98-0 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(3',5'-difluoro[1,1'-biphenyl]-2-yl)-5,6L12 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

746638-11-9 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-{2-(3-methylbutyl)phenyl}-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

746638-12-0 HCAPLUS
1,4-Oxathin-3-carboxamide,
-(3,3-dimethylbutyl)phenyl}-5,6-dihydro-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

(Continued) L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

$$R^{1}$$
 $R^{2}$ 
 $R^{3}$ 
 $G^{2}$ 
 $G^{3}$ 
 $G^{2}$ 
 $G^{1}$ 
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 $G^{3$ 

Title compds. I [G1 = CF3, cyclopropyl: G2, G3 = H, CH3; R1, R2, R3, R4 = H, F, Cl, CH3; Z = Z1, Z2, Z3, Z4; Z1 = [un]substituted phenyl: Z2 = [un]substituted cycloalkyl, bicycloalkyl; Z3 = [un]substituted alkyl: Z4

H, F, C1, CH3; 2 = 21, 22, 23, 24; 21 = (unisubstituted phenyl; 22 = (unisubstituted cycloalkyl, bicycloalkyl; 23 = (un)substituted alkyl; 24 (un)substituted cycloalkyl, alkenyl, alkynyl, etc.) and their pharmaceutically acceptable salts were prepared For example, coupling of 2'-aminobiphenyl-4-carbaldehyde-0-methyloxime and oxathienylcarboxylic acid II. e.g., prepared from chi-2-chloro-3-keto-4, 4-trifluorobutyrate in 3-steps, afforded oxathienylcarboxamide III in 21% yield. In venturia apple protection assays. 8-examples of compds. I exhibited 80% efficiency at 100 g/hs (sic) application. 746624-53-19 746624-54-4P 746624-55-9P 746624-53-19 746624-54-4P 746624-55-9P 746624-59-79 746624-65-9P 746624-69-9P 746624-69-9P 746624-69-9P 746624-79-3P 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746624-79-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 746623-70-79 74662

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 26 Aug 2004

ACCESSION NUMBER: 2004:695242 HCAPLUS

DOCUMENT NUMBER: 141:225519

TITLE: Preparation of oxacthienylcarboxamides as microbicide Agents.

Dunkel, Ralf; Elbe, Hans-Ludwig; Rieck, Heiko: Greul,
Joerg Nico: Wachendorff-Neumann, Ulrike; Dahmen,
Peter: Kuck, Karl-Heinz
Bayer Cropscience A.-G., Germany
Ger. Offen, 40 pp.
CODEN: GWXXBX INVENTOR(S): PATENT ASSIGNEE(S): DOCUMENT TYPE: Patent German FAMILY ACC. NUM. COUNT: PATENT INFORMATION: APPLICATION NO. PATENT NO. KIND DATE PATENT NO. KIND DATE APPLICATION NO. DATE

DE 10306244 Al 20040826 DE 2003-10306244 20030214
AU 2004212056 Al 20040826 AL 2004-7212056 20040205
CA 2515922 Al 20040826 CA 2004-7215952 20040205
W0 2004072023 A2 20040826 W0 2004-2191053 20040205
W0 2004072023 A3 20050407
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EC, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KC, KP, KR, KZ, LC, LK, IR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MN, MZ, NA, NI
RN: BW, GH, GM, KE, LS, MW, MZ, SD, SZ, TZ, UG, 2M, 2W, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, CG, GW, ML, MR, NE, SN, TD, TG
EP 1599460 A2 20051130 EP 2004-708349 20040205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, 1E, SI, TL, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
BB 2004007254 A 20060131 BR 2004-7254 20040205
CRITY APPLIN. INFO:

DE 2003-10705274 A 20060127 JP 2006-501741 20040205
CRITY APPLIN. INFO:

DE 2003-10705274 A 20060127 JP 2006-501741 20040205
CRITY APPLIN. INFO:

DE 2003-10705274 A 20060127 JP 2006-501741 20040205
CRITY APPLIN. INFO:

DE 2003-10705274 A 20060127 JP 2006-501741 20040205
CRITY APPLIN. INFO:

DE 2003-10705274 A 20060127 JP 2006-501741 20040205
CRITY APPLIN. INFO:

DE 2003-10705274 A 20060127 JP 2006-501741 20040205
CRITY APPLIN. INFO:

DE 2003-10705274 A 20030214 20030214 20040205 20040205 20040205 DE 2003-10306244 DE 2003-10306244 PRIORITY APPLN. INFO.: DE 2003-10321270 A 20030513 WO 2004-EP1053 A 20040205 MARPAT 141:225519 OTHER SOURCE(5):

L12 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
746625-20-7P 746625-21-BP 746625-22-9P
746625-23-0P 746625-24-1P 746625-22-9P
746625-24-3P 746625-27-4P 746625-28-5P
746637-89-8P 746637-90-1P
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN
(Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of oxathienylcarboxamides as microbicide agents.)
RN 746524-50-0 HCAPIUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-N-{4'-([methoxyimino)methyl]{1,1'biphenyl]-2-yl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME) (Uses)

746624-51-1 HCAPLUS
1.4-Oxathin-3-carboxamide, 5.6-dihydro-2-(trifluoromethyl)-N-[2-(1,3,3-trimethylbutyl)phenyl]- (9CI) (CA INDEX NAME)

RN 746624-52-2 HCAPLUS
CN 1,4-0xathiin-3-carboxamide,
N-[2-(1,3-dimethylbucyl)phenyl]-5,6-dihydro-5methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN dihydro-2-methyl- (9CI) (CA INDEX NAME) (Continued)

627105-99-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-[3'-chloro-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Title compds. [I; R = H, (halo)alkyl, cycloalkyl; Z = H, (halo)alkyl; X,

halo, NO2, cyano, OH, CO2H, cycloalkyl, alkoxycarbonyl, alkoxyimidoalkyl, (halo-substituted) alkyl, alkoxy, alkylthio,

stirring for 2 h at 50° to give 74% N-[2-(4-methoxyimidomethylphenyl]-2-methyl-4-trifluoromethylthiazole-5-carboxamide. Several I at 100 ppm gave 77-100% control of Podosphaera leucotricha on apple.
393821-35-7P 393821-47-1P

īΤ RE: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

USES (Uses)

(Uses)

(preparation of N-biphenylcarboxamides as bactericides)
RN 393821-35-7 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
5,6-dihydro-N-[4'-(methoxymino)methyl){1,1'-biphenyl}-2-yl)-2-methyl- (9CI) (CA INDEX NAME)

RN 393821-47-1 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-N-[3'-[(methoxyimino)methyl][1,1'-

ED Entered STN: 01 Feb 2002

ACCESSION NUMBER: 2002:136:151158

TITLE: 1NVENTOR(S): 2002:151:15159

PATENT ASSIGNEE(S): 2002:151:15159

PATENT ASSIGNEE(S): 2002:151:15159

POCUMENT TYPE: 2002:151:15159

DOCUMENT TYPE: 2002:151:15159

DOCUMENT TYPE: 2002:151:15159

DOCUMENT TYPE: 2002:151:15159

ELDe, Hans-Ludwig; Rieck, Heiko; Dunkel, Ralf; Wachendorff-Neumann, Ulrake; Mauler-Machnik, Astrid; Kuck, Karl-Heinz; Kugler, Martin; Jaetsch, Thomas Bayer Aktlengesellschaft, Germany CODEN: PIXXD2

DOCUMENT TYPE: 2002:151

DATENT INFORMATION: 1

FAMILY ACC. NUM. COUNT: 1

FAMILY ACC. NUM. COUNT: 1

FAMILY ACC. NUM. COUNT: 1

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT:

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		BE,	DK,	ES,	11,	PK,	GB,	GR,	IE,	11,	10,	MC,	ar.	T.	TC,		
		BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GW,	m.,	MR,	NE,	3447	10,		0010	50
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	2001	15,	51,	LI,	LV,	E1,	2003	AC 2 4	C1,	n,	001-	1267	6		,	0010	71
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HU	2003	0100			~~		2003	0020		10 2	1003-	5141	0.3		5	0010	7;
JP	2004	5043	63		1		2004	0212		711	2002-	3141	,		- 5	0010	71
IN	2001	MUUU	664		Α.		2003	0304		T. 15	2001-	MU 0 0	,		2	0010	12
ZA	2003	0006	33		Α.		2004	0212		6A 6	2003-	2226			2	0030	50.
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OTHER SOURCE(S): MARPAT 136:151158

L12 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN biphenyl]-2-yl]-2-methyl- (9CI) (CA INDEX NAME)

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE PEFFERENCE COUNT:

FORMAT

L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 AC5 on STN
ED Entered SIN: 31 Oct 2001
ACCESSION NUMBER: 2001:788425 HCAPLUS
DOCUMENT NUMBER: 137:33267
TITLE: Synthesis of trifluoromethylated dihydro-1,4-oxathincarboxanilides and their fungicidal activity
AUTHOR(5): Hahn, Roh-Gyu; Nam, Kee Dal; Kim, Jin-Cheol; Cho,

CORPORATE SOURCE:

Hann, Hon-Gyur Nam, Nee Bal Nin, Stitute of Science and Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea Han'guk Nonghwa Hakhoechi (2001), 44(3), 191-196 CODEN: JKACA7; ISSN: 0366-2897 Korean Society of Agricultural Chemistry and Biotechnology
Journal

SOURCE:

PUBLISHER:

DOCUMENT TYPE: LANGUAGE:

English CASREACT 137:33267 OTHER SOURCE(S):

 $\alpha,\beta$ -Unsatd. carboxanilides with trifluoromethylated dihydro-1,4-oxathiins (I; r. = 0,1; R = H, 4-Me, 2, 3, or 4-OMe, -Cl, or -F, 3 or 4-ON2, 4-Br, 2-CF3, 2-Ph, etc.) were synthesized for the development of new agrochem. fungicide. Chlorination of trifluoromethylated  $\beta$ -keto ester, i.e. CF3CCCH2CO2Et, followed by the reaction with 1,2-mercaptoethanol gave intermediate 1,4-oxathiane (II; X

OH). Without purification of II (X = OH), substitution of hydroxy group

by chlorine, followed by dehydrochlorination of II (X = Cl) in the presence of triethylamine afforded trifluoromethylated dihydro-1, 4-oxathiin Et ester (III R1 = Et). Chlorination of the hydroxy group of the carboxylic acid III (R1 = H) followed by N-acylation of various amines gave the corresponding trifluoromethylated dihydro-1, 4-oxathiin carboxamides I. Antifungal screening (in vivo) of the synthesized compds. against typical plant diseases, which include rice blast, rice sheath blight, cucumber gray mold, tomato late blight, wheat leaf rust, and barley powdery mildew. mildew,

ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continue 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-[2-(trifluoromethyl)phenyl)- (9CI) (CA INDEX NAME) (Continued)

437714-39-1 HCAPLUS
1,4-Oxathin-3-carboxamide, N-{1,1'-biphenyl}-2-yl-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

437714-41-5 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(2-cyanophenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

437714-47-1 HCAPLUS
1,4-0xathin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

437714-48-2 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) was carried out. Where meta position of the Ph group was substituted with

USES (Uses)

(preparation of trifluoromethyldihydro-1,4-oxathiincarboxanilides as

agrochem. fungicides)
220288-82-4 RCAPLUS
1,4-Oxathin-3-carboxemide, 5,6-dihydro-N-(2-methylphenyl)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME) RN CN

220288-85-7 HCAPLUS
1,4-0xathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

437714-38-0 HCAPLUS

L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

437714-50-6 HCAPLUS 1,4-0xathiin-3-carboxamide, N-(5-chloro-2-methylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

437714-52-8 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-(trifluoromethyl)-.(9CI) (CA-INDEX NAME)

437714-65-3 MCAPLUS 1,4-Oxathinn-3-carboxamide, N-(2-chioro-6-methylphenyl)-5,6-dihydro-2-(crifluoromethyl)- (9CI) (CA INDEX NAME)

437714-68-6 HCAPLUS 1,4-Oxachlin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

437714-69-7 HCAPLUS 1,4-0xathiin-3-carboxamide, 5,6-dihydro-N-[2-(1-methylethyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

2

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 21 Jan 2001 ACCESSION NUMBER: 2001:51606 HCAPLUS DOCUMENT NUMBER: 134:280789 TITLE: Synthesis of 1-methylethyl 2-chloro-5-[[(5,6-dihydro-2-methyl-1,4-oxsthin-3-yl)carbony

AUTHOR(S):

o-2methyl-1,4-oxathin-3-yl]carbonyl]amino|benzoate
analogs and their antiviral activity
Xiaoshen, Ji; Yulun, Wang; Huafeng, Zhang; Yan, Gao;
Zhenye, Liu; Jiankang, Wang
Department of Clinical Pharmacology, General Hospital
of Air Force, Beijing, 100036, Peop. Rep. China
Journal of Chinese Pharmaceutical Sciences (2000),
9(4), 179-181
CODEN: JCHSE4; ISSN: 1003-1057
Beijing Medical University. School of Pharmaceutical
Sciences
Journal
English
CASREACT 134:280789 CORPORATE SOURCE:

SOURCE:

PUBLISHER:

DOCUMENT TYPE:

LANGUAGE: OTHER SOURCE(S): GI

l-Methylethyl 2-chloro-5-[{(5,6-dihydro-2-methyl-1,4-oxathlin-3-yl]carbonyl]amino|benzoate (I, UC84) has strong antiviral activity. UC84 was taken as the leading compound, and Il analogs were synthesized. All these compds. were evaluated, and some of them showed the obvious ΑB

-HBV and anti-HSV activities. The results indicated that the analogs of UC84 might be the potential anti-HSV and anti-HBV drugs. 331809-62-2P

RI: BAC [Biological activity or effector, except adverse); BSU (Biological

logical atudy, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation) (preparation of 1-methylethyl 2-chloro-5-[[(5,6-dihydro-2-methyl-1,4-oxathin-3-y1)carbonyl]amino]benroate analogs and their antiviral activity) 331809-62-2 RCAPLUS 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methyl-5-nitrophenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 13 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 25 Oct 2000 ACCESSION NUMBER: 2000:750704 HCAPLUS DOCUMENT NUMBER: 134:266254

TITLE:

AUTHOR (S):

CORPORATE SOURCE:

134:266254
Preparation of UC84 derivatives
Ji, Xiaoshen: Jin, Tao: Miao, Yi: Liu, Yan: Liu,
Zhenye: Zhang, Huafeng
Department of Clinical Pharmacology, The General
Hospital of Air Force, Beijing, 100036, Peop. Rep.

SOURCE:

PUBLISHER: DOCUMENT TYPE: LANGUAGE:

331809-62-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and effect of UC84 derivs.)
331809-62-2 HCAPLUS
1,4-OXathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methyl-5-nitrophenyl)- (9CI) (CA INDEX NAME)

E12 ANSWER 14 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered 5TN: 20 Apr 1999
ACCESSION NUMBER: 1999:241387 HCAPLUS
130:338072
FORMATION of bicyclic β-lactams from dichlore-1,4-oxathiane-3-carboxanilides: nucleophilic substitution of nitrogen on anomeric carbon Hahn, Hoh-Gyu: Chang, Kee-Hyuk
Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-731, S. Korea
FUBLISHER: CODE: HTCYAM; ISSN: 0385-5414
Japan Institute of Heterocyclic Chemistry
Journal DOCUMENT TYPE: LANGUAGE: MENT TYPE: Journal UNIGE: English R SOURCE(S): English R SOURCE(S): CASREACT 130:338072
Transformation of dichloro-1,4-oxathianecarboxanilides(I)to bicyclic pl-lactams is described. In the presence of sodium hydride, an intramol. nucleophilic substitution of nitrogen to anomeric carbon of I gave (1R:,6R*)-1-chloro-6-methyl-7-phenyl-5-oxa-2-thia-7-azabicyclo(4,2,0)cctan-8-ones. The reason for facile displacement at C-2 is attributable to neighboring group participation of sulfur and C-2 is anomeric. Plausible mechanisms for the formation of 2-chloromethyl-5,6-dhydro-N-phenyl-1,4-oxathian-3-carboxamide under the neutral conditions, or 2,3-dhydroxy-2-methyl-N-phenyl-1,4-oxathiane-3-carboxyamide in ous OTHER SOURCE(S): solution, or bicyclic  $\beta$ -lactam in the presence of sodium hydride were proposed. 21554-33-6

21534-33-6
RL: RCT (Reactant): RACT (Reactant or reagent)
(formation of bicyclic β-lactams from dichloro-1,4-oxathiane-3carboxanilides by nucleophilic substitution of nitrogen on anomeric
carbon)
21554-33-6 HCAPLUS
1,4-Oxathiin-3-carboxamide,
dihydro-2-methyl-N-(2,4,6-trimethylphenyl)(9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE S CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 15 OF S1 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

220288-89-1 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(2-acetylphenyl)-5,6-dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L12 ANSWER 15 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN
ED Entered STN: 08 Jan 1999
ACCESSION NUMBER: 1999:11372 HCAPLUS
DOCUMENT NUMBER: 130:153621
TITLE: Synthesis of trifluoromethylated dihydro-1,4-oxathiin-3-carboxanilides through polymer-bound activated Hahn, Hoh-Gyu; Kee, Hyuk Chang; Kee, Dal Nam; Bae, Su AUTHOR(S): Hahn, Hon-Gyu; Kee, Hyuk Chang; Nee, Dal Ham. Dec. 30 Yeoul; Mah, Heduck Organic Chemistry Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea Heterocycles (1998), 48(11), 2253-2261 CODEN: HTCYAM; ISSN: 0385-541 Japan Institute of Heterocyclic Chemistry CORPORATE SOURCE: SOURCE: PUBLISHER PUBLISHER: Japan Institute of Heterocyclic Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
CTHER SOURCE(s): CASREACT 130:153621

AB A synthesis of new trifluoromethylated dihydro-1,4-oxathinn-3carboxanilides through polymer-bound activated ester is described.
Chlorination of Et y,y,y-trifluoroacetoacetate followed
by treatment of 2-mercaptoethanol gave hydroxyoxathiane isomers.
Replacement of hydroxy.by-bis-ine and then dehydrochlorination afforded
trifluoromethylated dihydro-1,4-oxathiin-s-carboxylic acid,
4-hydroxy-3-nitrobenzophenone ester was prepared through the reaction of
polystyrene-bound 4-hydroxy-3-nitrobenzophenone with the
trifluoromethylated dihydro-1,4-oxathiin-3-carboxyli calcid,
6-hydroxy-3-nitrobenzophenone ester was prepared through the reaction of
polystyrene-bound 4-hydroxy-3-nitrobenzophenone with the
trifluoromethylated dihydro-1,4-oxathiin-3-carboxyl chloride. Refluxing
of this ester with anilines in acetonitrile gave the title
Carboxanilides.
The reaction rate depended on the nucleophilicity of nitrogen in aniline.
IT 20288-82-4P 20288-85-7P 20288-89-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of trifluoromethyldihydroxachiincarboxanilides from
polymer-bound activated ester)
RN 20288-82-4 RAPPLUS
CN 1,4-oxathiin-3-carboxamide, 5,6-dihydro-N-(2-methylphenyl)-2(trifluoromethyl)- (9CI) (CA INDEX NAME) DOCUMENT TYPE:

220288-85-7 HCAPLUS
1,4-0xathiin-3-carboxamide, 5,6-dihydro-2-(trifluoromethyl)-N-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

130:38037
Anchimeric assistance in the rearrangement of dichloro-3-methyl-1,4-oxathianes to 2-chloromethyl dihydro-1,4-oxathians
Hahn, Hoh-Gyu: Choi, Joong-Kwon; Nam, Kee Dal Org, Chem. Lab, Korea Institute of Science and Technology, Seoul, 136-791, S. Korea Sulletin of the Korean Chemical Society (1998), 19(10), 1109-1112
CODEN: BKGSDE; ISSN: 0253-2964
Korean Chemical Society
Journal
English AUTHOR(S): CORPORATE SOURCE:

PUBLISHER: DOCUMENT TYPE: LANGUAGE: GI

Anchimeric assistance of anilide in the rearrangement of dichloro-1,4-oxathianes I (R = OMe, NNPh, NNC6H4COMe-2, NNC6H4COMe-4, NNC6H4NO2-2, NNC6H4NO2-2, NNC6H4NO2-2, NNC6H4NO2-2, NNC6H4NO2-2, NNC6H4NO2-3, NNC6H4NO2-4, NNC6H4NO2-4) to 2-chloromethyl dihydro-1,4-oxathins II is described. The inductive effect of the carbonyl group in I was negligible in the rearrangement. The rate of rearrangement of I to II depended on the basicity of the anilide nitrogen

Hydrogen bonding between the anilide hydrogen and ortho-substituents in I (R=NKC6R4C0Me-2, NKC6R40Me-2, NKC6R4N02-2) decrease the basicity of the anilide nitrogen and the rate of rearrangement of I to II.

Zlb69U-65-ZP Rl: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of methyldichlorooxathianecarboxylates and carboxamides

anchimeric assistance in their rearrangement to chloromethyloxathins) 216690-65-2 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(2-acetylphenyl)-5,6-dihydro-2-methyl-(9CI)

(CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

L12 ANSWER 16 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN
ED Entered STN: 11 Feb 1998
ACCESSION NUMBER: 1999:79728 HCAPLUS
DOCUMENT NUMBER: 128:140699
TITLE: Preparation of pyrazole-4-carbon
                                                                                                                                                                                           128:140699
Preparation of pyrazole-4-carboxanilides and analogs as agrochemical microbicides and pesticides elbe, Hans-Ludwig; Krueger, Bernd-Wieland; Markert, Robert; Tiemann, Ralf; Kuhnt, Dietmar; Dutzmann, Stefan; Stenzel, Klaus; Erdelen, Christoph; Kugler, Martin; Buschhaus, Hans-Ulrich Bayer A.-G., Germany Ger. offen., 72 pp. CODDN: GWXBXX
Patent
German
                         INVENTOR (S) :-
                         PATENT ASSIGNEE(S):
                         DOCUMENT TYPE:
                            LANGUAGE:
                          FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
MIND DATE APPLICATION NO. DATE

DE 19629828 A1 19980129 DE 1996-19629828 19960724

WO 9803500 M: ALT, AM, AT, AU, AZ, BA, BB, BB, BB, BB, CA, CA, CM, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, IK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MM, MK, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, RW: GH, KE, LS, MW, SD, SZ, UG, 2W, AT, BE, CH, DE, DK, ES, FI, FR, CM, ML, MR, NE, SN, TD, TG

AU 9734441 19990210 AU 1997-34441 19970711

EP 915868 A1 19990319 EP 1997-930522 19970711

EP 915868 B1 20041208

R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, N, PT

BR 9710400 A 19990817 BR 1997-10400 19970711

CN 1226244 A 19990817 BR 1997-10400 19970711

CN 1226244 A 19990817 BR 1997-10400 19970711

RU 9903691 A2 20000428 HU 1997-196717 19970711

RU 2194704 C2 2001220 RU 1999-106119 19970711

R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, N, PT

PT 915868 T 20000519 T 1997-930522 19970711

R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, N, PT

PT 915868 T 20000519 T 1997-93052 19970711

R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, N, PT

PT 915868 T 20000519 T 1997-93052 19970711

R: BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, N, PT

PT 915868 T 20000519 T 1997-93052 19970711

US 6334512 B1 2003018 US 2001-95508 19970711

US 6716881 B2 20040406

PRIORITY APPLN. INFO:: DE 1996-19629878
                                                                                                                                                                                                                                                                                                                                 WO 1997-EP3694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W 19970711
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OTHER SOURCE(S):

CASREACT 128:140699; MARPAT 128:140699

US 1999-230162

US 2001-955783

A3 19990120

A3 20010918

ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RIC(:X)NHZ1ZR [I: R = (un)substituted (hetero)aryl; R1 = (hetero)aryl; X AB

IT

RIC(:X)NHZIZR [I; R = (un)substituted (hetero)aryl; R1 = (hetero;aryl; X
O or S; Z = alk(en)ylene, CO, OCM2, CH2O, CH(OH), etc.; Z1 =
un)substituted 1,2-phenylene] were prepared Thus, 1-methyl-3trifluoromethylpyrazole-4-carbonyl chloride was smidated by 2-(HZN)C6H4OH
and the product echerified by 2,4-MeZc6H3CH2Cl to give title compound II.
Data for biol. activity of I were given.
202398-63-8P 202398-64-9P 202399-65-0P
202399-02-8P 202399-06-2P 202399-61-0P
202399-02-3P 202399-31-3P 202399-56-2P
202399-63-1P 202399-90-2P 202399-80-0P
202399-63-1P 202400-73-5P 202400-74-6P
202400-73-3P 202400-73-5P 202400-74-6P
202400-83-7P 202400-85-9P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except
adverse); BSU (Biological study), unclassified); SNN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation or pyrazole-4-carboxanilides and analogs as agrochem.
microbicides and pesticides)
202398-63-8 NCAPLUS
1,4-OXAthin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2phenylethenyl)phenyli- (SCI) (CA INDEX NAME)

202398-64-9 HCAPLUS 1,4-Oxacthin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-phenylethenyl]-, 4,4-dioxide (9CI) (CA INDEX NAME)

(Continued) L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

202398-65-0 HCAPLUS 1,4-0xathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-phenylethenyl)phenyl]-, 4-oxide (9CI) (CA INDEX NAME)

202399-02-8 HCAPLUS nethylphenyl)thio]methylphenyl)- (9CI) (CA INDEX NAME)

202399-06-2 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(phenylthio)methyl]phenyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 202399-11-9 HCAPLUS
CN 1,4-Oxathin-3-carboxamide,
H-[2-([2,4-dimethyl]phenoxy]methyl]phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 202399-23-3 HCAPLUS
CN 1,4-Oxacthin-3-carboxamide,
N-(2-[(4-chlorophenyl)thio]methyl]phenyl]-5,6dihydro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 202399-31-3 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-[2-[[(4-chlocopheny])thio]methyl]phenyl]-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 202399-88-0 HCAPLUS
CN 1,4-0xathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(phenoxymethyl)phenyl]- (9CI) (CA INDEX NAME)

RN 202399-90-4 HCAPLUS CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(3-methylphenoxy)]methyl]phenyl]- (9CI) (CA INDEX NAME)

RN 202399-92-6 HCAPLUS CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-[(4methylphenoxy)methyl]phenyl]- (9CI) (CA INDEX NAME) L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 202399-56-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-{2-[{4methylphenoxy}methyl]phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 202399-63-1 HCAPLUS
CN 1,4-0xathiin-3-carboxamide, 5,6-dihydro-N-[2-(phenoxymethyl)phenyl)-2(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 202399-80-2 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-N-[2-[(2methylphenoxy)-methyl)phenyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

-L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 202399-93-7 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[(2-methylphenoxy)methyl]phenyl]- (9CI) (CA INDEX NAME)

RN 202400-72-4 HCAPLUS CN 1,4-Oxathin-3-carboxamide, N-[2-[(2-chlorophenoxy)methyl]phenyl]-5,6dihydro-2-methyl- (9C1) (CA INDEX NAME)

RN 202400-73-5 HCAPLUS CN 1,4-Oxachiin-3-carboxamide, N-{2-((3-chlorophenoxy)methyl]phenyl]-5,6dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

202400-74-6 HCAPLUS
1,4-Oxathin-3-carboxamide, N-{2-[(4-chlorophenoxy)methyl]phenyl}-5,6-dhydro-2-methyl- (9CI) (CA INDEX NAME)

202400-83-7 HCAPLUS
1,4-0xathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-[[[[1-{3-(trifluoromethyl)phenyl)ethylidene]amino]oxy]methyl]phenyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ \hline \\ \text{CH}_2\text{-O-N} = \text{C} \\ \hline \\ \text{CF}_3 \end{array}$$

L12 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 10 Jan 1998

ACCESSION NUMBER: 1998:13933 HCAPLUS
DOCUMENT NUMBER: 128:15193

INVENTOR(S): PED ENTER ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
PCT Int. Appl., 110 pp.
COOM: PIXXD2

DOCUMENT TYPE: PATENT
LANGUAGE: GERMAN

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: German 1

PATENT NO. KIND DATE AU 9730936 PRIORITY APPLN. INFO.:

WO 1997-EP2845 w 19970602

CASREACT 128:75193; MARPAT 128:75193

OTHER SOURCE(S):

Use of title compds. [I: Q1, Q2 = 0, S: R1 = H. R11CO; R2 = R8R9NCO, R10CO, R11CO, R12SO2: R8 = H. alkyl, cycloalkyl, (substituted) aryl, heteroaryl; R9 = H. alkyl; R8R9N = (substituted) heterocyclyl; R10 = (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclyl; R11 = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkyn, heterocyclyl; R12 = R18kyl, aryl, heterocyclyl; R12 = R18kyl, aryl, heterocyclyl; R13 = R18kyl, alkenyl, cycloalkyl, R18RN = (substituted) heterocyclyl; R13 = H, alkyl, alkenyl, cycloalkyl, cycloalkyl, heterocyclyl; R13 = H, alkyl, alkenyl, cycloalkyl, cycloalkyl, alkenyl, aryl, heterocyclyl; R13 = H, alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl, heterocyclyl; R13 = H, alkyl, alkenyl, cycloalkyl, cycloalkony, cycloalkonyl, aryl, heterocyclyl, R13 = H, alkyl, alkenylox, aralkylthio, S1, arylthio, amino, etc.; R5-R7 = H, halo, cyano, NO2, alkyl, alkoxy, alkylthio, haloalkyl, haloalkoxy, haloalkylthiol for combating pests is claimed. Thus, 3-nitrophthalic anhydride was heated with BUN to give 88.18 3-nitrophthalic acid 2-Bu ester. The latter was refluxed with DMF di-Me acetal in PNMe to give 923 3-nitrophthalic acid 1-Me ester 2-Bu ester. I at 100 ppm gave 82-984

L12 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN RN 202400-85-9 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-[2-[(2,4-dimethyl]phenoxy]methyl]phenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME) (Continued)

L12 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) control of Botrytis cinerea on beans.

IT 200710-15-6P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of aminophthalic acid derivs. as pesticides)

RN 200710-35-6 HCAPLUS

N. 2-Benzenedicarboxylic acid, 3-{{(5.6-dihydro-2-methyl-1, 4-oxathiin-3-yl}carbonyl]amino}-, dimethyl ester (9CI) (CA INDEX NAME)

L12 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 17 May 1995

ACCESSION NUMBER: 1995:556514 HCAPLUS

DOCUMENT NUMBER: 122:305808

OXALTHIO (ANSWER) ANSWER OXALTHIO (ANSWER OXALTHIO (

169-78 CODEN: ACCHEH; ISSN: 0956-3202

PUBLISHER: Blackwell Journal

DOCUMENT TYPE: LANGUAGE:

MENT TYPE: Journal
JAGE: English
The HIV-1-specific exathin carboxanilide derivative 1-methylethyl
2-chlore-5-[[(5,6-dihydro-2-methyl-1,4-oxathin-3yllcarbonyl]aminojbenzene (NSC 615985) (designated UC84) has potent
activity against HIV-1(IIIB) (50% effective concentration: 0.015 μg

UC84 was found to select for a 138-Lys mutant virus strain in HIV-1-infected CEM cell cultures. When the 138-Lys mutation was introduced solely in the p51 subunit of the p51/p66 reverse transcriptase (RT) heterodimer by site-directed mutagenesis, the enzyme proved 10-fold more resistant to UC84 than when the amino acid mutation was introduced solely in the p66 subunit of the p51/p66 RT heterodimer. These data provided clear evidence for a structural and functional role of the p51 subunit in the sensitivity/resistance of the enzyme to UC84. UC84 also proved to be virtually inactive against mutant HIV-1 strains containing

100-Ile, 106-Ala, 138-Lys or 181-Cys mutation in their RT. However,

r structural changes in the mol., such as replacement of the oxygen of the amide moiety by sulfur, or the iso-Pr ester moiety by cyclopentyl or a sec-Bu, or the Me group of the oxathiin part by Et, made the compound markedly more irhibitory to one or several HIV-1 mutant strains. For example, compound 131 (1-methylethyl loro-5-[(f.6.6-dhydyo-2-methyl)-1.4-oxathiin-3-yl)thioxomethyl)amino|benzoate was only 2-fold more active

than the parent compound UCB4 against wild-type HIV-1, but 30- to 100-fold

inhibitory to HIV-1 mutant strains that contained the 100-Ile, 106-Ala, 138-Lys or 181-Cys in their RT. These findings should be taken into account when selecting suitable drug candidates for the treatment of

infections, particularly those that have developed resistance to other non-nucleoside RT inhibitors (NNRTIs).

IT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

.ogical study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

es) (oxathiin carboxanilides: HIV-l-specific reverse transcriptase

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 16 Oct 1993
ACCESSION NUMBER: 1993:560132 HCAPLUS
DOCUMENT NUMBER: 119:160132
ANII de derivatives and their use to combat Botrytis
Eicken, Karl; Goetz, Norbert: Harreus, Albrecht;
Ammermann, Eberhard; Lorenz, Gisela; Rang, Harald
BASF A.-G., Germany
SOURCE: EXXLOW
DOCUMENT TYPE: Pater

DOCUMENT TYPE: LANGUAGE:

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

***************************************					
	KIND	DATE	APPLICATION NO.	DATE	
			EP 1992-119105	199211	
EP 545099			•• •••	199211	
EP 545099	A3	19931124			
EP 545099	B1	19970305			
			GB, GR, IE, IT, LI, NL	PT, SE	
CA 2081935	Al	19930523		199211	02
CA 2081935	C				
IL 103614		19980924		199211	
AT 149467	T	19970315	AT 1992-119105	199211	
ES 2098421	T3	19970501 19940719	ES 1992-119105	199211	
US 5330995					
JP 05221994 .	A	19930831	JP 1992-303337	199211	13
JP 3202079	B2	20010827			
AU 9228554	А	19930527	AU 1992-28554	199211	20
AU 656243	B2 A2	19950127			
HU 62861	A2	19930628	HU 1992-3653	199211	20
HU 213622	В	19970828			
ZA 9208977	A	19940519	ZA 1992-8977	199211	
PL 171304	B1	19970328	PL 1992-296677		
5K 281730	В6	20010710		199211	
CZ 289478	В6	20020116	CZ 1992-3448	199211	
US 5480897	A	19960102			
US 5556988	A	19960917	US 1995-472927	199506	
US 5589493	A	19961231	US 1995-478681	199506	
JP 2001253802	A	20010918	JP 2001-85276	200103	23
JP 3657523	B2	20050608			
JP 2001316210	A	20011113	JP 2001-85342	200103	23
JP 3660890	B2	20050615			
PRIORITY APPLN. INFO.:			DE 1991-4138387	A 199111	22
			DE 1992-4204764	A 199202	18
			DE 1992-4204766	A 199202	18
			DE 1992-4204767	A 199202	18
			DE 1992-4204768	A 199202	18
			US 1992-973976	A3 199211	09
			JP 1992-303337	A3 199211	13
			us 1994-215463	A3 199403	21

L12 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN inhibition and prepn.) 135812-64-5 HCAPLUS

CN Benzoic acid,
3-[([5,6-dihydro-2-methyl-1,4-oxathlin-3-yl)carbonyl]amino]4-methyl-, propyl ester (9CI) (CA INDEX NAME)

L12 ANSWER 20 OF 51 HCAPLUS .COPYRIGHT 2007 ACS ON STN GI (Continued)

The use of the title compds. I (A = heteroaryl; R = haloalkyl, halo, alkenyl, alkoxy, etc.) for the inhibition of Botrytis is claimed. Treatment of N-propylaniline with 2-chloronicotinoyl chloride gave N-(2-chlorophenyl)-3-pyridinamide (II). II had fungicidal activity against Botrytis cineres. 149708-93-94 149708-04-7P 149708-42-9P 149708-3-9P 149708-43-0P 149708-0-75-9P 149708-75-9P 149708-7

149708-40-7 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-methylpropyl)phenyl]- (9CI) (CA INDEX NAME)

149708-42-9 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-methyl-(9C1) (CA INDEX NAME)

MARPAT 119:160132 OTHER SOURCE(S):

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

149708-43-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

RN 149708-44-1 HCAPLUS CN 1,4-Oxathiin-3-carboxanide, N-[2-(2-cyclopenten-1-yl)phenyl]-5,6-dihydro-2-methyl- (9Cl) (CA INDEX NAME)

RN 149708-45-2 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-[2-(2-cyclohexen-1-yllphenyl]-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

149708-75-8 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-cyclohexylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

149708-76-9 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-(1-methylpropyl)phenyl}-, 4-oxide (9CI) (CA INDEX NAME)

149708-77-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-[2-(2-methylpropyl)phenyl]-, 4-oxide (9CI) (CA INDEX NAME)

L12 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

149708-71-4 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-(1-methylpropyl)phenyl}-, 4,4-dioxide (9CI) (CA INDEX NAME)

149708-72-5 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-{2-(2-methylpropyl)phenyl}-, 4,4-dioxide (9CI) (CA INDEX NAME)

RN 149708-74-7 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(2-cyclopentylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 23 Sep 1991
ACCESSION NUMBER: 1991:514520 HCAPLUS
DOCUMENT NUMBER: 1591:514520 Treatment of HIV infections and compounds useful therein

INVENTOR(S): Harrison, William A.; Jewell, Gary E.; Felauer, Ethel E.; Dekeyser, Mark A.; Cong, Dong D.; McGuiness,

James A.; Mishra, Anupama; Brouwer, Walter G.; McPhee,

Uniroyal Chemical Ltd., Can., Uniroyal Chemical Co., PATENT ASSIGNEE(S):

Inc.
PCT Int. Appl., 187 pp.
CODEN: PIXXD2
Patent
English

DOCUMENT TYPE:

FAMILY ACC. NUM. COUNT:

PA?	CENT I	ю.			KINE	)	DATE		AP	PLICATION	NO.		DATE
WO	9105	761			A1		1991	0502	WO	1990-US5	760		
	W:	AU.	BR,	CA,	FI,	HU,	JP,	KR,	NO, SI	U			
				CII	DP	DV	FF	FD	CB CI	D TT TI	N1.	SE	
US	5268	389			A.		1993	1207	US	1990-588 1990-206	208		1990092
CA	2067	381		٠.	A1		1991	0417	CA	1990-206	7381		1990100
CA	2067	361			C		2004	0406		1990-660			
AU	9066	035			A		1991	0516	AU	1990-660	35		1990100
AU	6364	09			B2		1993	0429					
ZA	9006	094			Α		1991	0828	ZA	1990-809 1990-775	4		1990100
BR	9007	758			A		1992	0811	BR	1990-775	В		1990100
EP	4978	16			A1		1992	0812	EΡ	1990-915	588		1990100
EP	4978	16			B1		1995	0517					
	R:	AT,	BE,	CH,	DE,	DK.	ES.	FR.	GB, G	R, IT, LI	, LU,	NL, SE	2
HU	6071	3			A2		1992	1028	HU	1992-125	В		1990100
HU	6071 2207	59			B1		2002	0528					
JÞ	0450	7422			T		1992	1224	JP	1990-514	569		1990100
JР	0610	2641			В		1994	1214					
RU	2108	785			C1		1998	0420	RU	1990-501	1885		1990130
IL	9595	6			А		1996	0331	IL	1990-959	56		1990101
CN	1051	036			A		1991	0501	CN	1990-108	426		1990101
US	5693	827			А		1997	1202	US	1995-485	291		1995060
ORIT	APP	LN.	INFO	.:					US	1990-514 1990-501 1990-959 1990-108 1995-485 1989-421	155	A	1989101
										1990-567			1990081
									US	1990-588	208	A	1990092
									WO	1990-US5	760	A	1990100
									110	1993-989	78	в3	1993072

MARPAT 115:114520 OTHER SOURCE(S):

L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

AB Numerous potential antivirucidal (thio)amidobenzoates RC(X)NHC6HnR14nC02R2 [R = (un)substituted 1,4-oxathiin-3-yl, furyl, Ph,
1,4-dithiin-2-yl; Rl = Cl, F, OH; R2 = alkyl; X = 0, S] and related
compds. were prepared Thus, amidobenzoate I was prepared by reaction of
5,6-dihydro-2-methyl-1,4-oxathiin-3-carbonyl chloride and
2,5-cl(H2N)C6H3C02CHMe2.

IT 135812-16-7P 135812-64-5P 135813-23-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as human immunodeficiency virus inhibitor)
RN 135812-16-7 HCAPLUS
CN Benzoic acid,
3-{(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]amino}4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 135012-64-5 HCAPLUS
CN Benzoic acid,
3-[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]amino]4-methyl-, propyl ester (9CI) (CA INDEX NAME)

135913-23-9 HCAPLUS
Benzoic acid, 2-chloro-5-[[2-[[(5,6-dihydro-2-methyl-1,4-oxathiin-3-

L12 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1982:217860 HCAPLUS
COCUMENT NUMBER: 5,6-Dihydro-2-methyl-N-phenyl-1,4-oxathiin-3-carboxamide
INVENTOR(S): 2notins, Andrew A.; Brewer, Arthur D.
Univoyal Ltd., Can.
COORE: CAXXA1

DOCUMENT TYPE: CORE: CAXXA4

DOCUMENT TYPE: Patcht
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

KIND

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... APPLICATION NO. DATE KIND DATE PATENT NO. 19820216 19810915 19830328 19840228 19840831 19800306 19881219 19890605 19800417 19830127 19830127 CA 1981-371748 CA 1978-310606 HU 1979-UI283 19810225 19790904 19790904 19790905 AU 1979-50603 19790905 EP 1979-301827 19790905 19800827 19810218 19811223 19811230 ZA 1979-4694 DD 1979-215367 EP 1981-106224 19790905 19790905 EP 42182
R: DE, FR, GB,
CS 215123
CS 215124
PL 124628
SU 1029828
JP 56099469
JP 56099470
PRIORITY APPLN. INFO.: IT, B2 B2 CS 1979-6017 CS 1981-458 PL 1979-218135 SU 1979-2806608 JP 1980-167336 JP 1980-167337 CA 1978-310606 19790905 19790905 19790905 19790905 19801127 19820730 19820730 19830228 19830715 B1 A3 19810810 19810810 CA 1979-334458 A 19790827 EP 1979-301827 A 19790905

OTHER SOURCE(S):

CASREACT 96:217860

The title compound was prepared in 63% overall yield by treating AB The title compound was prepared in ending the MeCOCH2COMHPh with HSCH2CH2CH2OH to give I (n = 0) which oxidized with H2O2 and PhMe in L12 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 y1]carbonyl]amino]benzoyl]amino]-, 1-methylethyl ester (9CI) (CA INDEX
NAME)

L12 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
the presence of Na2W04, followed by ring enlargement of I (n = 1) with
Bu4N*Br..

1 6577-30-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 6577-30-6 HCAPLUS
CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)(9CI)

(CA INDEX NAME)

-0.551

L12 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1980:141624 HCAPLUS DOCUMENT NUMBER: 92:141624

TITLE: AUTHOR (S):

CORPORATE SOURCE:

92:141624
A molecular receptor model for carboxin
Schewe, T.: Mueller, W.: Lyr, H.: Zanke, D.
Inst. Physiol. Biol. Chem., Humboldt-Univ. Berlin,
Berlin, Ger. Dem. Rep.
Abhandlungen der Akademie der Wissenschaften der DDR,
Abteilung Mathematik, Naturwissenschaften, Technik
(1979), (2N. Yortr. Int. Sym p.: Systemfungiz., 5th,
1977), 241-51
CODEN: AAWTD2: ISSN: 0138-1059
Journal
German SOURCE:

DOCUMENT TYPE: LANGUAGE: GI

Data are given on the in vitro effect of 24 carboxin [5234-68-4] deriva. and analogs I (R = H. tert-Bu, cyclopentyl, cyclohexyl, Ph, substituted Ph, d-naphthyl, etc) and R'CONNPh (R' = 2-methyl-1,4-oxanthin-1-yl, o-tolyl, o-hydroxyphenyl). 2-methyl-1,4-oxanthin-1-yl dioxide, etc) on succinate cycochrome c reductase [9028-10-8] from cattle heart mitochondrial nonphosphorylating electron-transport particles (Mweller, W., et al., 1977). The succinate dehydrogenase subunit high-potential Fe-5 protein (Fe 5-center 33) seems to be the specific receptor, and the interaction seems to involve the hydrophobic group at the amide-N, the 2-cis-Me of the oxathin cycle, and the vinylogous CO group. A model is given, by which the electrophilic C of the d-B-unaadd. CO group is bound to the cysteine-5 of the Fe-5 cluster, whereas the N and O are bound coordinatively to 2 different Fe atoms of the cluster.

6577-30-6 6577-34-0

RL: PROC (Process)

(binding of, to succinate dehydrogenase high-potential iron-sulfur protein, mol. receptor model in relation to)

6577-30-6 HCRPUS

1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

(9CI)

(CA INDEX NAME)

L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1980:71049 HCAPLUS
DOCUMENT NUMBER: 92:71049
FATEHT ASSIGNEE(5): Von Schmeling, Bogislav: Kulka, Marshall; Thiara, Dalel Singh: Harrison, William Ashley
Uniroyal, Inc., USA; Uniroyal Ltd.

DOCUMENT TYPE: ROMEN, 15 pp.
CODEN: RUXKA3
PAMILY ACC. NUM. COUNT: 1

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

APPLICATION NO. DATE KIND DATE PATENT NO. 19771010 RO 1971-68189 RO 1971-68189 19710911 19710911 RO 61104 PRIORITY APPLN. INFO.:

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AB The oxathiin derivs. I (R = alkyl, cycloalkyl, aralkyl, or aryl; R1 = H, alkyl, or substituted alkyl; n = 1 or 2) are systemic bactericides and fungicides. Thus, soil application of 5 ppm

2,3-dhydro-5-carboxanlido-6-methyl-1,4-oxathiin 4,4-dioxide [5259-88-1] at sowing controlled bean rust caused by artificial Rhizoctonia solani infestation. The synthesis of 1 is given.

II 17357-73-20 17357-76-55 17757-78-79
17757-73-80 17757-93-14P 17757-93-69
17757-94-7P 17757-98-1P 17758-04-2P
17758-05-39 17762-58-2P 17762-75-3P
17762-76-4P 17946-62-2P
RL: BBC (Biological activity or effector, except adverse); BSU

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

ogical study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

study): PREP (Preparation)
(preparation and bactericidal and fungicidal activity of)
17757-73-2 HCAPLUS
1,4-oxathin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9CI) (CA INDEX NAME)

L12 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

6577-34-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(CA INDEX NAME) (9CI)

(Continued) L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

17757-76-5 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)

1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9CI) (CA INDEX NAME)

17757-79-8 HCAPLUS

...э---э-- пьяныэ 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4-Oxide (9C1) (CA INDEX NAME)

1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-,4,4-dioxide (9C1) (CA INDEX NAME)

L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17757-93-6 HCAPLUS 1,4-Oxathiin-J-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17757-94-7 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17757-98-1 HCAPLUS 1.4-Oxathin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

...so-va-c «LANEUND 1,4-Oxathin-3-carboxamide, N-{2,4-dimethylphenyl}-5,6-dihydro-2-methyl-, 4,4-dioxide (SCI) (CA INDEX NAME)

L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17946-62-2 HCAPLUS 1,4-Oxathin-3-carboxamide, N-[2-(aminocarbonyl)phenyl]-5,6-dihydro-2-methyl-, 4,6-dioxide (9CI) (CA INDEX NAME)

13582-78-0P
RL: RCT (Reactant): SPN (Synthetic preparation): PREP (Preparation): RACT (Reactant or reagent) (preparation and oxidation of) 13582-78-0 HCAPLUS 1,4-Oxathinin-3-carboxamide, N-{2,3-dimethylphenyl}-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME) ΙT

L12 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17758-05-3 HCAPLUS
1,4-0xathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

17762-58-2 HCAPLUS 1.192-30-2 HLMFNUS 1,4-Oxathiin-3-carboxamide, N-{4-chloro-2-methylphenyl}-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

17762-75-3 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17762-76-4 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9C1) (CA INDEX NAME)

E12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1979:54799 HCAPLUS
DOCUMENT ONMBER: 90:54799
TITLE: Heterocyclic carboxylic acid anilides
Hobele, Adolf Ciba-Gelgy A.-G., Switz.
Patentschrift (Switz.), 17 pp.
COOPE: SWXXAS
DOCUMENT TYPE: Patent
Lawcing C.

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

DATE PATENT NO. KIND DATE APPLICATION NO. CH 1977-15061 CH 1977-15061 CH 606029 PRIORITY APPLN. INFO.: 19781013 A5

The anilides I  $\{R=C1-4 \text{ alkyl or alkoxy, halogen}; R1=R2=H, C1-3 \text{ alkyl, halogen}; R3=H, Mer Z=CH2, CHMe; R4=(esterified) CO2H, (substituted) COH12; R5=(Mer-or halogen-substituted) 5-or 6-membered heterocycle with 1 or 2 hetero atoms] were prepared for use as$ 

phytopathol.

fungicides (no data). Thus, 2,6-Me2C6H5NH2 reacted with 2-furoyl chloride, and the product was treated with BrCHMeCO2Me to give I (R = Me. Rl = R2 = H, R3 = 6-Me. ZR4 = CHMeCO2Me, R5 = 2-furyl).

IT 58185-00-59 58185-15-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of) 58185-00-5 HCAPLUS

NAME | State |

L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 58185-01-6 HCAPLUS
CN Alanine,
N-{2-chloro-6-methylphenyl}-N-{{5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl}-, methyl ester {9CI} (CA INDEX NAME)

58185-02-7 KCAPLUS Glycine, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2,6-dimethylphenyl)-, methyl ester (9C1) (CA INDEX NAME)

58185-04-9 HCAPLUS Glycine,

N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2-ethyl-6-

L12 ANSWER 26 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1994
ACCESSION NUMBER: 1979:17500 HCAPLUS
OCCUMENT NUMBER: 90:17500 HCAPLUS
OXAThin Garboxamides highly active against Carboxin-resistant succinic dehydrogenase complexes from carboxin-selected mutants of Ustilage maydis and Aspergillus nidulans
White, G. A.: Thorn, G. D.: Georgopoulos, S. G.
Res. Inst., Agric. Canada, London, ON, Can.
Pesticide Biochemistry and Physiology (1978), 9(2), 165-82
CODEN: PCBPBS; ISSN: 0048-3575
Journal
English

CONHPh

Succinate dehydrogenase [9002-02-2] complex (SDC) of certain oxathiin carboxamides were selectively active against a particular mutated U. maydis and A. nidulans. Mol. structures affecting the phenotypic expression of mutation to carboxin (I) [5234-68-4] resistance in U. maydis did not appear to affect similarly such expression in A. nidulans and vice versa. Of particular interest was the discovery of oxathiin carboxamides, e.g., 4'-phenylcarboxin [13582-42-8], which were more inhibitory to the enzyme ccaplex from one category of I-resistant mutants of U. maydis than from the wild-type strain. Although such neg. correlation between I and other I analogs was not observed in studies

other categories of mutants, structures which drastically lower the resistance level were found in all cases. It appears that for any given mutation affecting I sensitivity of the SDC in fungi, a specific structural group of carboxamides (or even a specific carboxamide) hay be found which will alleviate or reverse the effect of the mutation in terms of inhibition of the SDC. If the mutations alter a protein receptor since for carboxamides, such mutations might be expected to influence the binding of Is of different structure. In essence, then, different mol. structures can recognize different alterations in the mutated enzyme complex and inhibit effectively. With a few exceptions, the inhibition with

Carboxamides of cell growth of wild-type and I-resistant strains of U. maydis and A. nidulans closely paralleled the inhibition of their resp. SDCs. Although the few analogs tested were found unable to control corn smut systemically in seedlings attificially inoculated with compatible I-resistant strains, control of naturally occurring I-resistant strains

pathogenic fungi may be possible using particular structural analogs of I which selectively inhibit the mutant organisms. 6577-34-0P

IT 6577-34-0P
RL: SPN (Synthetic preparation): PREP (Preparation)
(preparation of, and inhibition of succinic dehydrogenase from Aspergillus
and Ustilago resistant to carboxin)
RN 6577-34-0 HCAPLUS

L12 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN methylphenyl)-, methyl ester (9CI) (CA INDEX NAME) (Continued)

58185-15-2 HCAPLUS Alanime. N=([c,6-dihydro-2-methyl-1,4-okathiin-3-yl)carbonyl}-N=(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)

L12 ANSWER 26 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

L12 ANSWER 27 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1978:70338 HCAPLUS
DOCUMENT NUMBER: 88:70338
Betoxification of carboxins
Lyr, Horstr, Ritter, G.; Polter, C.
Inst. Pflansenschutzforsch., DAW, Kleinmachnow, Ger.
Den. Rep.
Systemfungiz., Int. Symp. (1975), Meeting Date 1974, 167-76. Editor(s): Lyr, Horstr, Polter, C.
Akad.-Verlag: Berlin, E. Ger.
CODE: 37FLAE
LANGUAGE: German

LANGUAGE:

Carboxin (I, R = Ph) [5234-68-4] was oxidized by Ustilago zeae to carboxin sulfoxide [17757-70-9], especially in light. Some oxidation

carboxin sulfoxide [17757-70-9], especially in Figure Carboxin sulfoxide [17757-70-9], especially in Figure Carboxin and Aspergillus niger mitochondria. I (R = Ph) was also oxidized by riboflavin (83-88-5) in light. Cleavage of various I derivs. by barley aryl acyl amidase [9025-18-7] at ph 7.5, dependent on the substituent R, and was in the increasing order R = Ph, m-Mec6H4, o-Clc6H4, p-Mec6H4, o-Clc6H4, p-Mec6H4, p-Clc6H4, p-Mec6H4, and o-Mec6H4. Barley aryl acyl amidase was characterized using o-chloropropionanilide [2760-32-9] as a substrate.

1T 6577-30-6 6577-34-0
RL: RCT (Reactant): RACT (Reactant or reagent)
(hydrolysis of, by aryl acryl amidase, carboxin stability in relation to)

6577-30-6 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

(CA INDEX NAME)

6577-34-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

L12 ANSWER 28 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1978:70337 HCAPLUS

DOCUMENT NUMBER: 88:70337

The problem of selectivity as well as structure-receptor relationship of carboxin and its

structure-receptor relationship of Carboxin and its analogs Lyr, Horst; Schewe, T.; Mueller, W.; Zanke, D. Inst. Pflanzenschutzforsch., DAW, Kleinmachnow, Ger. Dem. Rep. Systemfungiz., Int. Symp. (1975), Heeting Date 1974, 153-66. Editor(s): Lyr, Horst; Polter, C. Akad.-Verlag: Berlin, E. Ger. CODEN: 37FLAE

AUTHOR(S): CORPORATE SOURCE:

SOURCE .

CUMENT TYPE:

эf

CONHPh

Evidence is presented, together with literature data, in support of a

of attack for carboxin (I) [5234-68-4] at the complex II-associated Pe-S-protein (FesEP) (Schewe, T., et al, 1973), situated after succinate dehydrogenase in the respiratory chain. I inhibits the electron transfer from the reduced FesEPto ubiquinone and cytochromes b. I is an inhibit of both the main and alternate respiratory pathway. Rhodotorula mucilaginosa was used to obtain data on respiration inhibition by I together with that by antimycin A, TTFA (2-theonyltrifluoroacetone) and 8-hydroxyquinoline. Inhibition of the succinic dehydrogenase activity in mitochondria and ETP (electron transport particles) from the I-sensitive Trametes versicolor and I-resistant Trichdesma viride were tested for I and I derivs. Effects on succinate cytochrome c reductase and NADH oxidase of cattle heart ETP were also tested. The activity of the I derivs on the cattle heart and T. versicolor ETP showed moderate correlation to the hydrophobicity parameter (octanol-HZO partition) of

the same derivs. No such correlation was shown for T. viride. Selectivity

I activity is probably due primarily to receptor affinity rather than hydrophobicity. Structure-receptor interactions are discussed. 6577-34-0 RC. BIOL (Biological study) (biol. electron transfer systems response to, fundicidal mechanism of action in relation to) 6577-34-0 HCAPLUS 1,4-Oxathiun-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

IT

L12 ANSWER 27 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 28 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 29 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1978:59279 HCAPLUS
DOCUMENT NUMBER: 88:59279
TITLE: The inhibition of chitin synthesis in vivo
AUTHOR(S): Riter, G.
CORPORATE SOURCE: Systeming:., Int. Symp. (1975), Meeting Date 1974, 203-6. Editor(s): Lyr, Horst: Polter, C.
Akad.-Verlag: Berlin, E. Ger.
CODEN: 37FLAE

DOCUMENT TYPE: Conference
LANGUAGE: German

AB 0f 20 fungicides tested, Nystatin [1400-61-9] and aureofungin [8065-41-6] showed the highest inhibition of chitin [1398-61-4] biosynthesis in Rhodtorula rubra, in vivo. Aureofungin at 10-7M inhibited chitin biosynthesis by 50%, but caused only slight inhibition of

glucosamine-3H uptake, by R. rubra. This, together with earlier

findings,

.nys. suggests a mechanism which does not involve strong membrane destruction. 6577-34-0

6577-34-0
(chitin formation inhibition by, in Rhodotorula rubra)
(577-34-0
HCAPLUS
1,4-Oxacthin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

L12 ANSWER 30 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

IT 6577-30-6
RL: BIOL Biological study)
(respiratory enzymes inhibition by, in cattle heart mitochondrial particles, receptors in fungi in relation to)
RN 6577-30-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI)

(CA INDEX NAME)

L12 ANSWER 30 OF 51 HCAPLUS COPYRIGHT 2007 ACS on 5TM ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1978:32999 HCAPLUS DOCUMENT NUMBER: 88:32999

TITLE:

88:32998
Effective mechanisms of respiratory inhibition by the fungicides of the carboxin group. Effect of oxachiin derivatives and analogs on nonphosphorylating submitochondrial particles from beef heart Mueller, W.; Schewe, T.; Lyr, H.; Zanke, D. Inst. Physiol. Biol. Chem., Humboldt-Univ., Berlin, Ger. Dem. Rep.
Zeitschrift fuer Allgemeine Mikrobiologie (1977). 17(5), 359-72

AUTHOR(S): CORPORATE SOURCE:

SOURCE:

17(5), 359-72 CODEN: ZAPOAK; ISSN: 0044-2208

DOCUMENT TYPE: Journal LANGUAGE:

The inhibitory activity of carboxin (I, R = Ph) [5234-68-4] and of 22 derivs, and analogs, such as I (R = H, cycloalkyl,  $\alpha$ -naphthyl, substituted Ph, etc.) was tested on the succinate-cytochrome c reductase [9028-01-98] and NADH oxidase [9037-21-7] of nonphosphorylating electron-transport particles (ETP) from cattle-heart mitochondria. Some

were also tested on particulate succinic dehydrogenase [9002-02-2] of

carboxin-sensitive Trametes versicolor and carboxin-resistant Trichoderma viride. The inhibitory activity of I on ETP cytochrome c oxidoreductase correlated well with that on succinic dehydrogenase of Trametes versicolor, but not with that on succinic dehydrogenase of Trametes versicolor. Low correlation was shown between the activity of I on cytochrome c oxidoreductase and the hydrophobicity parameter Ig P of I (P is the octanol to water distribution coefficient). Electronic and sterie effects were also evident. A multicenter mechanism is suggested for the receptor-binding of I. Mechanism of resistance to I is discussed. 8L: BIOL (Biological study) IT

6577-34-0
RI: BIOL (Biological study)
(respiratiory enzymes inhibition by, in cattle heart mitochondrial
particles, receptors in fungi in relation to)
6577-34-0 HCAPLUS
1,4-Oxathin-3-carboxamide, N-(1,1'-biphenyl)-2-yl-5,6-dihydro-2-methyl(SCI) (CA INDEX NAME)

L12 ANSWER 31 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1976:164796 HCAPLUS DOCUMENT NUMBER: 84:164796 HCAPLUS 194:164796 HCAPLUS 194:164796

ACS on STN

47/6:164796 HCAPLUS
84:164796
N-Substituted amides of 2,3-dihydro-6-methyl-1,4oxathin-5-carboxylic acid
Eckstein, Zygmunt: Ejmocki, Zdzislaw: Fulde, Stefan:
Kwiatkowski, Marian; Sawicki, Konrad: Tippe, Andrzej
Poltechnika Warszawska, Pol.
Pol., 4 pp.
CODEN: POXXA7
Patent
Polish
1 INVENTOR (5):

PATENT ASSIGNEE(S):

DOCUMENT TYPE:

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

APPLICATION NO. DATE PATENT NO. KIND DATE PL 76496 PRIORITY APPLN. INFO.: PL 1971-146555 PL 1971-146555 19710301

GI

Fungicidal 1,4-oxathiins (I, R = Ph, 2-BrC6H4, 2,4-F2C6H3, 2-PhC6H4, o-MeOC6H4) were prepared Thus, 2,3-dihydro-6-methyl-1,4-oxathiin-5-carboxylic acid in MeZCO-dioxane was treated with NMe3 at -10° and then with EtoZCCl and PhNH2 at -10° to -5° to give I (R =

Ph). 6577-34-0P IT

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of) 6577-34-0 HCAPLUS

ва:r-эя-v кцякым 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(SCI) (СА INDEX NAME)

L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1976:58964 HCAPLUS
BOCUMENT NUMBER: 84:58964 HCAPLUS
HVENTOR(5): Hubele, Adolf
PATENT ASSIGNEE(5): Ciba-Geigy A.-G., Switz,
GOLOMENT TYPE: GF. Offen., 46 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LNIGUAGE: GEMAN
FAMILY ACC. NUM. COUNT: 2

FAMILY ACC. NUM. COUNT: 2 DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

DIT INTOIGNATION				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2513732	Al	19751016	DE 1975-2513732	19750327
DE 2513732	C2	19880414		
CH 590608	A5	19770815	CH 1974-4572	19740402
СН 603041	A5	19780815	CH 1975-1591	19750210
DK 7501358	A	19751003	DK 1975-1358	19750326
DK 141168	В	19800128		
DK 141168	c	19800714		
DK 7501359	А	19751003	DK 1975-1359	19750326
DK 141995	В	19800804		
DK 141995	c	19801215		
FI 7500920	A	19751003	FI 1975-920	19750326
FI 63567	В	19830331		
FI 63567	С	19830711		
FI 7500921	A	19751003	FI 1975-921	19750326
NO 7501084	A	19751003	NO 1975-1084	19750326
NO 141340	В	19791112		
NO 141340	С	19800220		
NO 7501086	A	19751003	NO 1975-1086	19750326
NO 142714	В	19800623		
NO 142714	С	19801001		
SE 7503517	A	19751003	SE 1975-3517	19750326
SE 419218	В	19810720		
5E 419218	c	19811029		
SE 7503518	A	19751003	SE 1975-3518	19750326
5E 418086	В	19810504		
SE 418086	С	19810813		
FR 2265747	Al	19751024	FR 1975-9484	19750326 19750326
FR 2265748	A1	19751024	FR 1975-9485	19750327
NL 7503754	A	19751006	NL 1975-3754	19/3032/
NL 160821	В	19790716		19750327
NL 7503755	A	19751006	NL 1975-3755 AU 1975-79640	19750327
AU 7579640	A	19751009	AU 1975-79640 AU 1975-79641	19750327
AU 7579641	A	19760930	CA 1975-79641	19750327
CA 1050558	A1	19790313	CA 1975-223222 CA 1975-223227	19750327
CA 1050546	Al	19790313	DE 1975-2560591	19750327
DE 2560591	C2		BE 1975-154971	19750401
BE 627419	A1	19751001	BE 1975-154971 BE 1975-154972	19750401
BE 827420	A1	19751001	ZA 1975-1996	19750401
ZA 7501996	A	19760225	ZA 1975-1996 ZA 1975-1997	19750401
ZA 7501997	A	19760225 19760312	DD 1975-185144	19750401
DD 118510	A5	19/00312	OD 13/3-103144	15.50401

ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
2,3,6-Me2EcC6H2N(COR1)CHMeCO2Me (R1 = 2-furyl). About 115 I were prepd.
and tested on various fungi and plants.
58185-00-5P 58185-01-6P 58185-02-7P
58185-04-9P 58185-15-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
58185-00-5 HCAPLUS
Alanine.

RN 58185-00-5 HCAPLUS
CN Alanine,
N-(2-chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN \$8185-01-6 HCAPLUS
CN Alanine,
N-(2-chloro-6-methylphenyl)-N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl|carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

S8185-02-7 HCAPLUS Glycine, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl}-N-[2,6-dimethylphenyl)-, methyl ester [9CI] (CA INDEX NAME)

L12	ANSWER 32 OF 51	HCAPLUS	COPYRIGHT	2007 ACS on STN	(Continued)
	DD 118785	A5	19760320	DD 1975-185147	19750401
	GB 1448810	A	19760908	GB 1975-13332	19750401
	DD 124733	A5	19770309	DD 1975-192060	19750401
	ES 436174	A1	19770416	ES 1975-436174	19750401
	ES 436175	A1	19770416	E5 1975-436175	19750401
	IL 46988	A	19771230	IL 1975-46988	19750401
	AT 7502446	A	19780115	AT 1975-2446	19750401
	AT 345614	В	19780925		
	GB 1498199	А	19780118	GB 1975-13349	19750401
	AT 343407	В	19780526	AT 1975-2448	19750401
	IL 46989	A	19780615	IL 1975-46989	19750401
	HU 172935	В	19790128	HU 1975-CI1563	19750401
	HU 173317	В	19790428	HU 1975-CI1564	19750401
	RO 73181	Al	19821011	RO 1975-81867	19750401
	JP 50135225	A	19751027	JP 1975-40226	19750402
	JP 53045364	В	19781206		
	JP 50135226	A	19751027	JP 1975-40227	19750402
	JP 60042202	В	19850920		
-	PL 97786	B1	19780330	PL 1975-179266	19750402
	PL 98627	B1	19780531	PL 1975-179265	19750402
	CS 183788	82	19780731	CS 1975-2239	19750402
	CS 183789	B2	19780731	CS 1975-2240	19750402
	SU 682096	A3	19790825	5U 1975-2120455	19750402
	SU 743561	A3	19800625	SU 1975-2121601	19750402
	RO 79677	A1	19820817	RO 1975-81876	19750402
	RO 84021	Al	19840512	RO 1975-106426	19750402
	SU 628812	A3	19781015	SU 1975-2186207	19751105
	SU 626690	A3	19780930	SU 1976-2342705	19760405
	US 4046911	A	19770906	US 1976-703037	19760706
	US 4094990	A	19780613	US 1976-709066	19760727
	CH 598265	A5	19780428	CH 1977-4805	19770419
	AT 7707656	A	19800115	AT 1977-7656	19771027
	AT 358025	В	19800811		
	AT 7707893	A	19790815	AT 1977-7893	19771104
	AT 355561	В	19800310		
	JP 53135964	A	19781128	JP 1978-2327	19780112
	JP 57040829	В.	19820830		
	JP 53135965	A	19781128	JP 1978-2328	19780112
	JP 58045433	8	19831008		
PRIO	RITY APPLN. INFO.	:		CH 1974-4572	A 19740402
				СН 1975-1591	A 19750210
				us 1975-563035	A2 19750328
					** *******
				US 1975-563036	A1 19750328
				1005 0465	A 19750401
				AT 1975-2446	A 19750401
				N 1075 7460	A 19750401
				AT 1975-2448	¥ 13/20401

RnC6H5-nN(COR1)CHR2COR3 (I; R = Me, MeO, Cl, Et, BuO, etc; n = 1-4; Rl = furyl, thienyl, pyrimidinyl etc.;  $R^2$  = H, Me;  $R^3$  = MeO, EtO, Me2N, etc.}, useful as fungicides and plant growth regulators, were prepared Thus, 2,3,6-Me2EtC6H2NH2 reacted with BCCHMeCO2Me to give 2,3,6-Me2EtC6H2NHCHMeCO2Me, which reacted with 2-furancarbonyl chloride to give

(Continued) L12 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

58185-04-9 HCAPLUS

RN 59185-04-9 HCAPLUS
CN Glycine,
N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-N-(2-ethyl-6-methylphenyl)-, methyl ester (9CI) (CA INDEX NAME)

Sele5-15-2 MCAPLUS
Alanine, N-{(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl}-N-(2,6-dimethylphenyl)-, methyl ester (9CI) (CA INDEX NAME)

L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1975:573722 HCAPLUS
DOCUMENT NUMBER: 83:173722
TITLE: 55:173722
TITLE: 55:173722

fungicides and the succinic dehydrogenase complex of

Cryptococcus

laurentii and Ustilago maydis
White, G. A.; Thorn, G. D.
Res. Inst., Agric. Dep. Canada, London, ON, Can.
Pesticide Biochemistry and Physiology (1975), 5(4),
380-95. AUTHOR (S): CORPORATE SOURCE: SOURCE:

CODEN: PCBPBS; ISSN: 0048-3575

DOCUMENT TYPE:

DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.

AB The systemic fungicide, carboxin (I) [5234-68-4] and a variety of carboxamide compds. exhibut a marked specificity for Basidiomycate fungi.

This unique specificity resides in the mitochondrial succinic dehydrogenase [9002-02-2] complex (SDC) of sensitive Basidiomycates such as U. maydis, the corn smut fungus. The present study examines in detail the structure-activity relationships of 93 carboxamide compds. and the

the structure-activity relationships or 93 carboxamide compos, and the SDC

of two carboxin-sensitive organisms, U. maydis and a Basidiomycetous yeast, C. laurentii. It has been possible to elucidate substantially the requirement in mol. structure needed for inhibition of the mitochondrial SDC. With few exceptions, a good correlation exists between the inhibitory activity of carboxamides towards the SDC of U. maydis and C. laurentii and the inhibition of growth of carboxamide-sensitive fungi, both in vitro and in vivo on the diseased plant. The structure-activity results were used as a basis for the synthesis of new, fungicidally-active carboxamides. The compds. most active against the mycelial growth of Rhizoctonia solani were also tested on spore germination or mycelial growth of non-Basidiomycete fungi. Three carboxamilides (3-methyl-thiophene-2-carboxamilide [56776-44-4], 3'-methyl-2-methylbenramilide [56776-45-5], and 3'-methyl-2-ethylbenramilide [56776-46-6] had a fungitoxic spectrum which extended beyond Basidiomycetes. The spectrum of fungicidal activity of carboxamilides appears to be altered not only by substitution in the aniline ring, but by

the nature of the ring attached to the carbonyl. No correlation was found

between the inhibitory activity of oxathins and benzanilides and their calculated partition coeffs.
6577-30-6 6577-34-0 6577-38-4
13582-62-2 13582-78-0 14316-45-1
32416-55-0 35330-44-0 56776-47-7
RL: BIOL (Biological study)
(succinate dehydrogenase of Basidiomycete fungi inhibition by, structure and fungicidal activity in relation to)
6577-30-6 HCAPLUS
1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI)

(CA INDEX NAME)

L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

14316-45-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(9C1) (CA INDEX NAME)

32416-55-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-{4-methoxy-2-methylphenyl}-2-methyl- (9CI) (CA INDEX NAME)

35330-44-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-{2,6-dimethylphenyl}-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

(Continued) L12 ANSWER 33 Of 51 HCAPLUS COPYRIGHT 2007 ACS on STN

6577-34-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(SCI) (CA INDEX NAME)

6577-38-4 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13582-62-2 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX HAME)

13582-78-0 HCAPLUS 1,4-Oxathiin-3-carboxemide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(9C1) (CA INDEX NAME)

(Continued) L12 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

L12 ANSWER 34 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1974:459175 HCAPLUS
DOCUMENT NUMBER: 81:59175
TITLE: 1,4-oxathin derivatives protect plants against ozone
AUTHOR(s): Rich, Saul; Ames, Ronald; Zukel, J. N.
CORPORATE SOURCE: Connecticut Agric. Exp. Stn., New Haven, CT, USA
Plant Disease Reporter (1974), 56(2), 162-4
CODEN: PLDRA4; ISSN: 0032-0811
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Beans, cotton, tobacco, tomatoes and soybeans were protected from injury
by 25 ppm ozone [10028-15-6], carboxin (1) [5234-68-4], and other
1,4-oxathin derivs. The ability of the compds. to protect against ozone
injury is not related to its fungicidal activity. The effect of
oxidation of

tion of the S atom or substitution on the anilide group on the effectiveness of the protective analogs was discussed. 6577-30-6 13582-62-2

6577-30-6 13582-62-2
RL: BIOL (Biological study)
(ozone injury prevention by, in crop plants)
6577-30-6 HCAPLUS
1,4-Oxachiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-CN (9CI)

(CA INDEX NAME)

13582-62-2 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

13582-78-0 HCAPLUS
1,4-0xathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl(9C1) (CA INDEX NAME)

13502-79-1 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

17757-76-5 HCAPLUS 1,4-Oxathin-3-carboxamide, N-{2-ethylphenyl}-5,6-dihydro-2-methyl-,4-oxide (9C1) (CA INDEX NAME)

17757-79-8 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4-oxide (9C1) (CA INDEX NAME)

L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1974:434549 HCAPLUS
BOCUMENT NUMBER: 51:34549 HCAPLUS
BOCUMENT TYPE: 40 HCAPLUS
BOCUMENT TYPE: 40 HCAPLUS
BOCUMENT TYPE: 41 HCAPLUS
BOCUMENT TYPE: 42 HCAPLUS
BOCUMENT TYPE: 43 HCAPLUS
BOCUMENT TYPE: 44 HCAPLUS
BOCUMENT TYPE: 45 HCAPLUS
BOCUMENT TYPE: 45 HCAPLUS
BOCUMENT TYPE: 47 H

LANGUAGE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	- APPLICATION NO.	DATE
DE 2238053	Al	19731206	DE 1972-2238053	19720802
AT 319661	В	19750110	AT 1972-6239	19720719
	_		FR 1972-26726	19720725
FR 2193548	Al	19740222		
GB 1399286	A	19750702	GB 1972-35159	19720727
IT 964932	В	19740131	IT 1972-69630	19720811
CA-980593	A1 · ·	19751230	CA 1972-151255	19720908
CA 980594	Al	19751230	CA 1972-151256	19720908
JP 49024724	A	19740305	JP 1972-94464	19720920
	^	13.40303		19720522
			us 1972-255558 A	

Thirty-five oxathiin derivs. (I, R = H, Me, or Et, Rl = e.g. Ph, cyclohexyl, 4-Mec6H4, 2-Etc6H4, or 2,4-(MeO)2C6H3), their S-oxides, and S,5-dioxides protected plants, e.g. tobacco, bean, cotton, soybean, or tomato plants, against damaging by air pollutants, e.g. ozone. Thus, administration of 12 ppm -dihydro-2-methyl-1,4-oxathiin-3-carboxanilide [5234-68-4] to the soil protected Pinto beans 100% against ozone damage. 6577-30-6 13582-62-2 13582-78-0
13582-79-1 17757-76-5 17757-79-8
17757-91-4 17757-74-7 32416-55-0
RL: BIOL (Biological study)
(plant protective agent, against ozone damage) 6577-30-6 HCAPBUD.
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-1)

(CA INDEX NAME)

13582-62-2 HCAPLUS 1,4-Oxathin-3-carboxamide, N-{2-ethylphenyl}-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

(Continued) L12 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

17757-91-4 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

17757-94-7 HCAPLUS 1,4-0xathin-3-carboxamide, N-{2-ethylphenyl}-5,6-dihydro-2-methyl-,4,4-dioxide (SCI) (CA INDEX NAME)

32416-55-0 HCAPLUS
1,4-Oxachiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1973:155412 HCAPLUS DOCUMENT NUMBER: 78:155412

ED LINES.
ACCESSION NUMBER: 78:155412
TITLE:
1-0xa-2-methyl-3-(aminocarbonyl)-4-thia-2-cyclohexenes
INVENTOR(S): Kulka, Marshall; Thiara, Dalel Singh; Harrison, William Ashley

PATENT ASSIGNEE(S): Uniroyal, Inc.
SOURCE: Ger. 10 pp. Division of Ger. 1,543,942 (See Neth. 66,05,525, CA 66;95055w).
CODEN: GMXXAW
Patent

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1793632	C2	19730719	DE 1967-1793632	19660425
US 3393202	A	19680716	US 1965-451048	19650426
BR 6677408	DO.	19730809	BR 1966-177408	19660228
BE 679985	A	19661003	BE 1966-679985	19660425
IL 25635	Ä	19700420	IL 1966-25635	19660426
NL 6910431	Ä	19691027	NL 1969-10431	19690708
RIORITY APPLN. INFO.:			US 1965-451048 A	19650426

The title compds. acted as systemic fungicides in plants and animals. Some individual compds. also showed bactericidal and antiviral activity. For example, 1-oxa-2-methyl-3-(o-phenylanilidocarbonyl)-4-thiacyclohex-2-ene (I) [6577-34-0] was highly effective in vitro at 1000 ppm against the human pathogens Trichophyton mentagrophytes var interdigitale and T. rubrum. Spraying with 1-oxa-2-methyl-3-(anilidocarbonyl)-4-thiacyclohex-2-ene (II) [5234-68-4] was 100% effective against Uromyces phaseoli on beans at 100 ppm and 90% effective against Alternaria solami on tomatoes at 500 ppm. Incorporation of 20 ppm 1-oxa-2-methyl-3-(iN,N-dibutylamidocarbonyl)-4-thiacyclohex-2-ene [13582-30-4] into the soil before sowing gave 94% protection of cotton from Rhizoctonia solami. 6577-30-6 6577-34-0 13582-62-2
13582-78-0 13582-84-8 14316-45-1
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (USES)

IT

(funglides) 6577-30-6 MCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-

CN (9CI)

(CA INDEX NAME)

L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

NATURAL MARKED 1,4-Oxathin-3-carboxamide, N-{1,1'-biphenyl}-2-yl-5,6-dihydro-2-methyl-(SCI) (CA INDZX NAME)

13582-62-2 HCAPLUS 1,4-Oxathin-1-acrboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

13582-78-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(9C1) (CA INDEX NAME)

13582-84-8 HCAPLUS

1,4-Oxathinn-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(SCI) (CA INDEX NAME) CN

L12 ANSWER 37 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1994
ACCESSION NUMBER: 1973:39134 HCAPLUS
DOCUMENT NUMBER: 78:39134
TITLE: Effectiveness of systemic fungicide seed dressings as protectants of barley seedlings against Cochliobolus sativus

AUTHOR(S): CORPORATE SOURCE: SOURCE:

sativus Richardson, Lloyd T. Res. Inst., Canada Dep. Agric., London, ON, Can. Canadian Journal of Plant Science (1972), 52(6), 949-53

349-53
CODEN: CPLSAY; ISSN: 0008-4220
DOCUMENT TYPE: Journal
LANGUAGE: English
AB C. sativus was completely controlled on barley seeds by treatment with 5

Vitavax [5234-68-4], 2.5 g F 427 [2.3-dihydro-5-o-phenylaniido-6-methyl-1,4-oxathin) [6577-34-0] or 2.5 g G 696 [2.4-dimethyl-5-carboxanilidothiazole) [21452-18-6]/kg seed. In the greenhouse, the emergence of barloy was increased by seed treatment with 2.5 g G 696/kg. of all the seed-dressing fungicides tested, only G 696 controlled infection from leaf inoculation.
6577-34-0
RL: BIOL Biological study (Cochliobolus sativus control by, in barley, by seed treatment) 6577-34-0
HCAPIUS [1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

IT

L12 ANSWER 38 OF S1 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1884
ACCESSION NUMBER: 1972:326649 HCAPLUS
COCUMENT NUMBER: 77:126649
INVENTOR(S): 5,6-Dlhydro-2-methyl-1,4-oxathiin-3-carboxamide
4,4-dioxides
PATENT ASSIGNEE(S): Uniroyal Ltd.
Ger. Offen., 22 pp.
COOMENT TYPE: COOM: GWXXBX
DOCUMENT TYPE: Patent LANGUAGE: GERAL
FAMILLY ACC. NUM. COUNT: GERAL
FAMILLY ACC. NUM. COUNT: 1

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	DE 2158312	A	19720713	DE 1971-2158312	19711124
	US 3888878	A	19750610	US 1970~101429	19701224
	NL 7116006	A	19720627	NL 1971-16006	19711119
	IT 942931	В	19730402	IT 1971-70838	19711123
	RO 62258	Al	19771015	RO 1971-68848	19711124
	AT 312626	В	19740110	AT 1971-10260	19711129
	FR 2119390	A5	19720804	FR 1971-44250	19711209
	GB 1379745	A	19750108	GB 1971-57268	19711209
	CH 559745	A5	19750314	CH 1971-17968	19711209
	CS 187353	B2	19790131	CS 1971-8614	19711210
	SU 428606	A3	19740515	SU 1971-1726644	19711217
	SE 394509	В	19760510	SE 1971-16440	19711221
	DK 127500	В	19731119	DK 1971-6315	19711223
	PL 63078	A5	19751231	PL 1971-152444	19711223
RΙ	ORITY APPLN. INFO.:			US 1970-101429 A	19701224

For diagram(s), see printed CA Issue. Eleven title compds. (I, R = Ph, hexyl, 2,6-Et2C6H3, o-MeC6H4, 2,6-ClMeC6H3, 3,2-ClMeC6H3, cyclohexyl, 2,6-xylyl, m-O2NC6H4, a-naphthyl, Me2CH1, useful as fungicides, were prepared by oxidation of the oxathiin with a 2-phase mixture of HCO2H + H2O2 in either MeCOCHMe2

MePh at 75-92°. Thus, 5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide was suspended in MeCOCHMe2, HCO2H, and H2O2, and the

mixture refluxed 1.5 hr to give 97% I (R = Ph).

IT 6577-30-6P | 15822-79-1P | 13582-34-6P | 4316-45-1P | 3530-44-0P | RL: SPM | Synthetic preparation); PREP (Preparation) (preparation of)

RN 6577-30-6 HCAPPUS
CN 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-19CI) RN CN (9CI)

(CA INDEX NAME)

L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 38 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

13502-79-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (SCI) (CA INDEX NAME)

13582-84-8 HCAPLUS

1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

14316-45-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

35330-44-0 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

L12 ANSWER 39 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1972:444336 HCAPLUS DOCUMENT NUMBER: 77:444336 TONICOLOR CONTROL OF VITUS diseases of places of the control of vitus diseases of places of vitus diseases of places of vitus diseases of places of vitus diseases of vitus di

77:44336
Control of virus diseases of plants with
5,6-dihydro-2-methyl-1,4-oxathirn-3-carboxamides
Davis, Robert A.; Grahame, Robert E.; Kulka, Marshall
Uniroyal, Inc.; Uniroyal Ltd.
U.S., 4 pp.
CODEN: USXXXM

INVENTOR(5): PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3657449	A	19720418	US 1970-17945	19700309
CA 942189	A1	19740219	CA 1970-97250	19701103
PRIORITY APPLN. INFO.:			US 1970-17945 A	19700309

Plant diseases caused by virus, such as tobacco ringspot and southern

mosaic viruses, are controlled by application of oxathiincarboxamides. Under severe test conditions where the untreated cowpea plants were

Under Severe test controls make the Controls of the Within 5-7 days, treatment with 5,6-dihydro-2-methyl-N-(m-tolyl)-1,4-oxathin-3-carboxamide (I) [6577-31-7]*(35 ppm) resulted in 100° survival 2-3 weeks after injection with tobacco ringspot virus when I was applied as soil drench prior to inoculation.
6577-34-0 13582-62-2 17757-91-4
35330-440-0
RL: BIOL (Biological study)
(as virucide for plants)
6577-34-0 HCAPLUS
1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

13582-62-2 HCAPLUS
1.4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI)
(CA INDEX NAME)

17757-91-4 HCAPLUS

L12 ANSWER 39 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued) CN 1,4-Oxathin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-,4,4-dioxide (9C1) (CA INDEX NAME)

35330-44-0 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl-(9C1) (CA INDEX NAME)

L12 ANSWER 40 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L12 ANSWER 40 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER:
DOCUMENT NUMBER:
1717LE:
Potent effect of 1,4-oxathin systemic fungicides on succinate oxidation by a particulate preparation from Ustilago maydis
Mhite, G. A.
CORPORATE SOURCE:
SOURCE:
Biochemical and Biophysical Research Communications (1971), 44(5), 1212-19
CODEN: BBRCA9; ISSN: 0006-291X UMGE: Journal
SUMGE: English
Carboxine (5,6-dihydro-2-methyl-1,4-oxathiin-3-carboxanilide) (I)
(5234-68-4) noncompetitively inhibited succinate (110-15-6) oxidation in
particulate prepns. from U. maydis (corn smut) by acting as a steric
inhibitor toward succinate dehydrogenase, or by inhibiting an electron
carrier component immediate to the dehydrogenase. The most potent
inhibitor was 3'-methyl carboxine (II) [6577-31-7] and the least potent,
the hydrolysis product of I, 5,6-dihydro-2-methyl-1,4-oxathiin-3carboxylic acid [6577-69-1]. The thiazole fungicides, including
2-maino-4-methylthiazole-5-carboxanilide [21452-14-2], were also strong
inhibitors of succinate oxidation
6577-30-6 6577-34-0 35330-44-0
RL: BIOL (Biological study)
(Succinate oxidation by Ustilago maydis in relation to)
6577-30-6 HCAPLUS
1,4-Oxathiin-3-carboxanide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)(CA NDEX NAME) DOCUMENT TYPE: Journal English LANGUAGE: (CA INDEX NAME)

6577-34-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

35330-44-0 HCAPLUS 1,4-0xathiin-3-carboxamide, N-(2,6-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1972:778 HCAPLUS
DOCUMENT NUMBER: 77:78
TITLE: Structure-activity relations
AUTHOR(S): Dep. Bot. Microbiol., Montana State Univ., Bozeman, MT, USA
SOURCE: Journal of Agricultural and Food Chemistry (1971), 19(5), 072-4
CODEN: JAFCAU: ISSN: 0021-8561
JOURNAL TYPE: Journal CAPLOW STRUCK STRUCK

polic
pathways in sensitive fungi, the toxic compds. also showing strong
inhibition of acetate [64-19-7] metabolism and RNA synthesis. Oxidation

IT

the I S atom or elimination of the benzene ring from I reduced or destroyed the toxicity.
6577-34-0
RE: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study);

USES (Uses)
(fungicides, action mechanism of)
(6577-34-0 MCAPLUS
1,4-Oxathin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

75:75245
Relations of molecular structure of 1,4-oxathiin
fungicides to chemotherapeutic activity against rust
and smut fungi in grasses
Hardison, John R.
Crops Res. Div., Agric. Res. Serv., Corvallis, OR,

AUTHOR(S): CORPORATE SOURCE: USA SOURCE:

USA
SOURCE: Phytopathology (1971), 61(6), 731-5
CODEN: PHYTAJ; ISSN: 0031-949X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Carboxin (I), oxycarboxin (II), and 10 other carboxin analogs were evaluated for systemic fungicidal activity against stripe rust (Pustriformis), stripe smut (Ustilago striiformis), and flag smut (Uscoystis) rust (Puccinia

(Urocystis agropyri) after soil application. Activity of I was poor against rust

agropyri) after soil application. Activity of I was poor against rust stripe smut and fair against flag smut. II was excellent against rust, good against stripe smut, and completely eradicated flag smut. 5,6-Dihydro-2-methyl-1,4-oxathin-3-carboxanilide-4-oxide was superior to I against rust but inferior to II against all 3 disease. 5,6-Dihydro-4'-methowy-2-methyl-1,4-oxathin-3-carboxanilide-4,4-dioxide had poor activity against stripe smut and decreased activity against flag smut but maintained good rust control as compared to II. Decreases or loss of activity against all 3 diseases was apparent in most nonoxidized analogs with substitutions to the phenyl ring, including 5,6-dihydro-2-methyl-N-(2-biphenyl)-1,4-oxathin-3-carboxamide, 2'.6'-diethyl-5,6-dihydro-2'-methyl-1,4-oxathin-3-carboxamide, 3'-chloro-5,6-dihydro-2',2'-dimethyl-1,4-oxathin-3-carboxamilide, and 5,6-dihydro-2'-methyl-N-(2-biphenyl)-1,4-oxathin-3-carboxamilide, 5,6-Dihydro-2-methyl-N-(2-biphenyl)-1,4-oxathin-3-carboxamilide shoroxidized heterocycle impaired rust control but had a much better activity against stripe smut and flag smut than did I and less phystoxactity than II. 5,6-Dihydro-2,3'-dimethyl derivative, maintained strong activity against and the 2',3'-dimethyl derivative, maintained strong activity against all 3

diseases with somewhat less plant injury.
6577-34-0 13582-78-0 13582-79-1
14316-45-1, 1,4-0xathiin-3-carboxanilide, 2',6'-diethyl-5,6-dihydro-2-methyl-1757-93-6 32416-55-0
RL: BIOL (Biological study)
(Pucchina striiformis and Ustilago striiformis control by)
6577-34-0 HCAPUS

5//-34-0 HCAPLUS .4-Oxathiin-3-carboxamide, N-{1,1'-biphenyl}-2-yl-5,6-dihydro-2-methyl-

(CA INDEX NAME)

(Continued) L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

32416-55-0 HCAPLUS

nonrowa 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl (9CI) (CA INDEX NAME)

L12 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

13582-78-0 HCAPLUS 1.4-Oxathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13582-79-1 HCAPLUS 1,4-0xathin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl- (9CI) (CA INDEX NAME)

1-310-13-1 HUAYEUS 1,4-Oxathin-3-carboxamide, N:(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(SCI) (CA INDEX NAME)

17757-93-6 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 43 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1994
ACCESSION NUMBER: 1370:497834 HCAPLUS
1370:497834 HCAPLUS
13797834 HCAPLUS
1 number

er of Basidiomycetes, Deuteromycetes, and a zygomycete. Eradicant activity of these compds. was determined against bean rust, Uromyces phaseoli typica. Substitutions in the carboxin mol. studied do not increase the spectrum

fungi to which the oxathiins are toxic. A number of yeastlike lower Basidiomycetes belonging to the Tremellales (jelly fungi) proved to be insensitive to oxathiins. The only deuteromycete in this study sensitive to oxathiins was Monila cinera f. americans. The 3'-methyl analog of carboxin is the only compound surpassing the fungitoxicity of carboxin. Electron withdrawing groups'(Cl and NO2). Substituted in the anline ring markedly reduce fungitoxicity. Replacement of the 2-methyloxathiin

moiety
by an o-tolyl, 2,4-dimethylthiazolyl, 2-amino-4-methylthiazolyl,
or even to some extent by a butyryl group, results in compds. retaining
the original biol. activity. Benzanilide is significantly less toxic to
Rhizoctonia solani than o-toluanilide, indicating that a methyl
group in position 2 is necessary for good toxicity. Results of
evaluation

Maction
of the eradicant activity of exathiins against bean rust correlate very well with those of in vitro fungitoxicity tests, suggesting that exathiin systemic fungities act by virtue of their fungitoxicity, rather than by altering host metabolism.

65/7-30-6 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(fungicides) 6577-30-6 HCAP

6577-30-6 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI)

(CA INDEX NAME)

L12 ANSWER 44 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON 5TM ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1969:511811 HCAPLUS DOCUMENT NUMBER: 71:111811 Effect of fungicides on Cochliobolus sativus and fungi on barley seed in soil Mills, J. T.; Wallace, H. A. H. Canada Dep. Agr., Winnipeg, MB, Can. Canadian Journal of Plant Science (1969), 49(5), AUTHOR(S): CORPORATE SOURCE: SOURCE: 543-8 CODEN: CPLSAY; ISSN: 0008-4220

DOCUMENT TYPE: Journal

ABN Nineteen seed-treatment fungicides were evaluated on barley seed infected with C. sativus, Alternaria alternata, and Streptomyces species. Seeds were treated with 0.97-2.80 g./kg. of each fungicide, placed in the soil for 7 days at 20°, and examined Ceresann M(0.97 g./kg.), Panagen PX (2.6 g./kg.), and Dithane M-45 (2.6 g./kg.) were best for control of C. sativus. A. alternata was controlled by all but SWF 850 (hexachlorobenzene-captan-Maneb formulation, I), and G-696 (2.4-dimethyl-5-carboxanildochiazole, II). Streptomyces growth was enhanced by I, II, 4497 (bis(1,2.2-trichloroethyl)-sulfoxide); SWF 800, SWF 860 (similar to I), and F-735 (2.3-dihydro-5-carboxanildo-6-methyl-1.4-oxathin). A filter paper technique was recommended for initial screening of fungicides.

IT 6577-34-0 RCAPLUS

RN 6577-34-0 RCAPLUS

RN 6677-34-0 RCAPLUS

RN 6677-34-0 RCAPLUS

RN 677-34-0 RCAPLUS

RN 677-34 CODEN: CPLSAY: ISSN: 0008-4220

L12 ANSWER 46 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1968:505333 HCAPLUS
DOCUMENT NUMBER: 69:105333
Antifungal 2,3-dihydro-1,4-oxathiin-5-carboxamides
Uniroyal, Inc.
SOURCE: BITL. 8 Pp.
CODEN: BRXXAA

DOCUMENT TYPE: LANGUAGE: English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.  GB 1124310  CA 951243  DE 1617921  DE 1617924  FR 6477	KIND	DATE 19680821	APPLICATION NO.  GB 1967-24834 CA DE DE FR	DATE 19670530
US 3538225 PRIORITY APPLN. INFO.:		19701103	us us	19660627 19660627

OTHER SOURCE(S): MARPAT 69:105333

OTHER SOURCE(5):

MARRAT 69:100-313

GI For diagram(s), see printed CA Issue.

AB The title compds. of formula I have useful antifungal activity against dermatophytes, especially against Trichophyton mentagrophytes var interdigitale.

The most active compds. against this fungus were I (R = 2-biphenylyl

(III), C6H13 (III), m-Mec6H4, 2,6-Et2C6H3, C5H11, and 2,4,6-Me3C6H2). Both II and III, each at 1000 μg./ml., were more effective (tests of zones of inhibition in agar plate culture) than griseofulvin and undecylenic acid. Using a seed agar technique, III in an ointment containing 1% (weight/weight) active agent was the most effective compound against T. mentagrophytes, T. rubrum.

agent was the most effective compound against T. mentagrophytes, T. rubrum, and Microsporum audouini.

1T 6577-34-0 14316-45-1 21554-33-6
R1: AGR (Agricultural use): BAC (Biological activity or effector, except adverse): BSU (Biological study, unclassified): BIOL (Biological study): USES (Uses)
(as fungicide)
RN 6577-34-0 HCAPLUS
CN 1,40-ACNAThin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

14316-45-1 MCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2,6-diethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

L12 ANSWER 45 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1969:19209 HCAPLUS

70:19209

ACCESSION NUMBER: DOCUMENT NUMBER: TITLE: the Determination of selective action of fungicides on

The sicroflora of barley seed
AUTHOR(S): Mills, J. T.; Mallace, H. A. H.
CORPORATE SOURCE: Res. Star., Canada Dep. Agr., Winnipeg. MB, Can.
SOURCE: Saf-94
CODEN: CPLSAY; ISSN: 0008-4220
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of 47 seed-treatment fungicides on the microflora of barley seed naturally infested 95-100V with Cochliobolus sativus and other fungi were investigated after 7 days on moiat filter paper. Each fungicide had a characteristic and reproducible effect on these organisms. Fungicides containing Hg or maneb were highly effective against all organisms.
Whereas

specific effects were associated with other fungicides. Least survival

control) of C. sativus was obtained with Ceresan M, Pandrinox APX and Panogen PX among the mercurials, and Green Cross SWF 850 and SWF 860, Chemagro 4497, and Chipman 53-64 among the nonmercurials. The incidence of Acremoniella detected was high on seed treated with Dexon, Cephalosporium with Vitavax, Streptomyces with Green Cross SWF 850, and Cladosporium with Green Cross 3922. The data obtained by the filter

paper method should be complementary to those obtained from treated seed after

days in soil. 6577-34-0 IT

6577-34-0
RL: BIOL (Biological study)
(as fungicides for barley seed)
6577-34-0 HCAPLUS

6577-34-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

L12 ANSWER 46 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

RN 21554-33-6 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide,
5,6-dihydro-2-methyl-N-(2,4,6-trimethylphenyl)(9CI) (CA INDEX NAME)

and

INVENTOR(S):

Dactericides
Von Schmeling, Bogislaw; Von Schmeling, Bogislav;
Thiara, Dalel S.; Harrison, William Ashley
Uniroyal, Inc.
Pr., 15 pp.
CODEN: FRXXAX
Patent
French

PATENT ASSIGNEE(S): SOURCE:

DOCUMENT TYPE: LANGUAGE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.  FR 1477062 DE 1567211 GB 1099243	KIND	DATE 19670414	APPLICATION NO. FR 1966-58541 DE GB	DATE 19660421
US 3402241 PRIORITY APPLN. INFO.:		19680917		19651105 19651105

US 3402241

(DSTTY APPIN. INFO.: 1968017, US 1968105

For diagram(s), see printed CA Issue.

Title compds. (I) showed a specific action against a number of soil pathogenic organisms such as Uromyces phaseoli typica and Rhizottonia solani and bactericidal properties in foliage treatment against several organisms such as Staphylococcus aureus. Rates of application were 0.15 g.-7.5 g./kg. of seed to be treated, and 113.5 g.-11.3 kg./ha. when used as soil fungicides; for these applications, powder formulations were more suitable. For foliage treatments, 3-11 kg./ha., generally in H20 cc. C6H6 was added dropwise in 2 hrs. at .appx.30° 20.4 g. KOH.

O.3 mole HS(CH2/20N, and 40 cc. MeoNl, and the mixture stirred 1 hr. and worked up to give 65% 2.3-dihydro-5-carboxanilido-6-methyl-1,4-oxathin (II), m. 93-5° (EtOH). To 25 g. II in 150 cc. AcON and 5 cc. H20 was added dropwise, with stirring, in 15 min. 12 cc. 30% H202 and 13 cc. AcON and the temperature kept at 10-13° 5 hrs. and at 10° 16 hrs. without stirring. Distillation and cooling gave 80% 3-dihydro-5-carboxanilido-6-methyl-1,4-oxathin 4-oxide, m. 120-1° (iso-PrOH). The sulfone was prepared by adding dropwise to 0.5 mole II in 400 cc. AcON, with stirring, 130 cc. 30% H202 at 45-50°. When the exothermic reaction was over, the mixture was heated 1 hr. as 22° and worked up to give 121 g. 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathin 4,4-dioxide (III), m. 128-10° (EtOH). The following IV were prepared (R, m.p., and 4 yield given): carboxanilido-6-methyl-1,4-oxathin 4,4-dioxide (III), m. 128-10° (EtOH). The following IV were prepared (R, m.p., and 4 yield given): carboxanilido-6-methyl-1,2-oxathin 4,4-dioxide (III), m. 128-10° (EtOH). The following IV were prepared (R, m.p., and 4 yield given): carboxanilido, 121-2°, 80; 2,3-dinethylcarboxanilido, 168-70° (decomposition), 83; N-cyclohexylcarboxanilido, 171-8°, 80; 2-cholorocarboxanilido, 18-10°, 80; 2-cholorocarboxanilido, 18-10°, 80; N-cholorocarboxanilido, 18-10°, 80; N-cholorocarboxanilido, 18-10°, 80; N-choloroca

1.12 AMSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
99; 3-methoxycarboxanilido, 155-7°, 82; carboxymorpholido,
104-6°, 65; p-carboxycarboxanilido, 230-5° (decompn.) 84;
3, 4-dimethoxycarboxanilido, 188-90° (decompn.), 75;
H-isopropylcarboxanido 121-2°, 74; N-ethylcarboxanilido,
112-13°, 50; carboxanilido, 128-10°, 90;
m-methylcarboxanilido, 133-5°, 90; N-cyclohexylcarboxanido,
182-4°, 80; o-methylcarboxanilido, 123-5°, 85;
p-methylcarboxanilido, 163-5°, 87; 2, 3-dimethylcarboxanilido,
151-3°, 44; Z-ethylcarboxanilido, 160°, 85;
3-methoxycarboxanilido, 160-2°, 86; 4-methoxycarboxanilido,
137-8°, 90; 3-bromocarboxanilido, 180-3°, 48; 2-methoxycarboxanilido,
186°, 70; 3-chlorocarboxanilido, 180-3° (decompn.), 69;
3-t-trichlorocarboxanilido, 120-4°, 78; 2-methoxycarboxanilido,
186°, 70; 3-chlorocarboxanilido, 180-3° (decompn.), 69;
N-butylcarboxanido, 156-7°, 75; N-n-octylcarboxanido, 140°,
80; 2,4-dimethylcarboxanilido, 140-6°, 73; 2,5dimethylcarboxanilido, 130-3°, 83; 3,4-dichlorocarboxanilido,
160-2°, 48; 2-methyl-4-methoxycarboxanilido, 133-6°, 60;
2-chloro-6-methylcarboxanilido, 163-5°, 50; N-methylcarboxanilido,
126°, 92; N-n-pentylcarboxanilido, 155°, N-isopropylcarboxanido,
126°, 92; N-n-pentylcarboxanilido, 155°, 81;
N-n-taylcarboxanido, 150°, 85; N-isopropylcarboxanido,
173-4°, 91; 4-bromocarboxanilido, 125-6°, 83;
N-octadecylcarboxanido, 150°, 85; N-isopropylcarboxanido,
173-4°, 91; 4-bromocarboxanilido, 125°, 95;
2, 3-dichlorocarboxanilido, 189-9° (decompn.), 69;
3, 5-dichlorocarboxanilido, 189-9° (decompn.), 69;
3, 5-dichlorocarboxanilido, 189-9° (decompn.), 69;
3, 5-dichlorocarboxanilido, 187-9° (decompn.), 59;
NIn-decyllcarboxanido, 122-3°, 80; 2-chlorocarboxanilido,
152-3°, 89; 3, 4-dimethoxycarboxanilido, 183-5°, 82;
N-hexadecylcarboxanido, 122-3°, 15; N-benylcarboxanido,
152-3°, 89; 3, 4-dimethoxycarboxanilido, 183-5°, 89;
N-hexadecylcarboxanido, 152-6°, 81; N-methylcarboxanido,
152-3°, 89; 3, 4-dimethoxycarboxanido, 6-methyl-4-chlorocarboxanilido,
169-70°, 93; 3-chloro-4-methylca

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17757-73-2 HCAPLUS 1,4-Oxathin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)

17757-76-5 HCAPLUS 1//3/-/e-3 MLAMAUS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4-oxide (9CI) (CA INDEX NAME)

1,4-0xathin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9CI) (CA INDEX NAME)

(Continued) L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

17757-91-4 HCAPLUS 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-, 4,4-dioxide (9CI) (CA INDEX NAME)

17757-93-6 HCAPLUS 1,4-Oxathin:3-acaboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9C1) (CA INDEX NAME)

17757-94-7 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17757-98-1 NCAPLUS 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17758-04-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

17758-05-3 HCAPLUS 

17762-58-2 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-(4-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

17762-75-3 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN ED Entered STN: 12 May 1984 ACCESSION NUMBER: 1968:78294 HCAPLUS DOCUMENT NUMBER: 68:78294 TITLE:

68:78294
2,3-Dihydro-5-carbamoyl-6-methyl-1,4-oxathiin sulfoxides and sulfones Uniroyal, Inc.
Neth. Appl., 28 pp.
CODEN: NAXXAN

PATENT ASSIGNEE(S): SOURCE: DOCUMENT TYPE: Patent

LANGUAGE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6605527		19670508	NL 1966-5527	19660425
DE 1543941			DE	
DE 1793638			DE	
FR 1477061			FR	
GB 1099245			GB	
US 3399214		19680827	U\$ 1965-506596	19651105
PRIORITY APPLN. INFO.:			US	19651105

For diagram(s), see printed CA Issue. The title compds. (I) are prepared by oxidation of oxathiins. Thus, 72 SO2C12 was dropwise added to a solution of 150 g. acetoacetanilide (II)

SO2C12 was dropwise added to a solution of 150 g. acetoacetanilide (III)

1. C6H6 to give 131 g. a-chloroacetoacetanilide (III), m.
136-8'. To 63.5 g. III in 300 cc. C6H6, 20.4 g. KOH solution, then
22.2 cc. 2-mercaptoethanol (IV) in 400 cc. MeOH was added in 2 hrs. at
30' to give 45.8 g. 2,3-dihydro-5-(phenylcarbamoyl)-6-methyl-1,4-.
oxathiin (V), m. 93-5'. V also may be prepared by treating 33 g.
a-chloroacetoacetate in 200 cc. C6H6 with a solution of 11.6 g. KOH and
16 g. IV in 30 cc. MeOH at 30', saponification of the obtained Et.
2,3-dihydro-6-methyl-1,4-oxathiin-5-carboxylate, bl 107-10', with
NAOH in EtOH, then treating the acid with SOC12 and condensing the
chloride with PhNH2 in CHCl3. A mixture of 480 g.
-dihydro-5-carboxy-6methyl-1,4-oxathiin and 600 cc. CHCl3 is treated with 393 g. SOC12, then
with m-toluidine to give 2,3-dihydro-5(m-methylphenylcarbamoyl)-6-methyl-1,4-oxathiine (VI), m. 82-4''. Similarly were prepared the
5-substituted V analogs: cyclohexylcarbamoyl, m. 130-1';
3,5-dichlorophenylcarbamoyl, m. 147-9', noccylcarbamoyl,
74-5'; 2,4,5-trichlorophenylcarbamoyl, m. 165-7'. To a
solution of 25 g. V in 150 cc. ACOH and 5 cc. H20 12 cc. 308 H202 and 13
ACOH was slowly added at 10-13' to give the 4-oxide, m.

ACOH was slowly added at 10-13° to give the 4-oxide, m.

120-1° (iso-PrOH). Treatment of 117.5 g. V in 500 cc. AcOH at

40-50° with 130 cc. 30% H202 gave the 4.4-dioxide, m.

128-30° (EDCH). Similarly are obtained the tabulated 4-oxides and

4.4-dioxides from the appropriate starting amines. The products are

intermediates for syntheses.

17757-73-2P 17757-76-5P 17757-78-7P

17757-79-8P 17757-99-1P 17757-93-6P

17757-9-8P 17757-99-1P 17758-04-2P

17758-05-3P 17762-56-2P 17762-75-3P

17762-76-4P 17842-01-4P 17842-210-3P

17843-68-4P 17843-81-1P 17946-62-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

L12 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

17762-76-4 HCAPLUS 1.4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

(prepn. of)

RN 17757-73-2 HCAPLUS

CN 1,4-0xathin-3-carboxamide, N-{2,3-dimethylphenyl}-5,6-dihydro-2-methyl-,
4-oxide (9CI) (CA INDEX NAME)

17757-76-5 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9C1) (CA INDEX NAME)

17757-78-7 RCAPLUS
1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-,4-oxide (9C1) (CA INDEX NAME)

17757-79-8 HCAPLUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-,4-oxide (9C1) (CA INDEX NAME)

17757-91-4 HCAPLUS 1.13-73-7 NOAFAUS
1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-.
4,4-dioxide (SCI) (CA INDEX NAME) L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 17757-93-6 HCAPLUS
CN 1,4-Oxathinn-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-,
4,4-dioxide (SCI) (CA INDEX NAME)

RN 17757-94-7 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl-,
4,4-dioxide (9C1) (CA INDEX NAME)

RN 17757-98-1 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

RN 17758-04-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-,
4,4-dioxide (951) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 17842-03-4 HCAPLUS
CN 1.4-Oxathin-3-carboxy-o-toluidide, N-ethyl-5,6-dihydro-2-methyl4,4-dioxide (8C1) (CA INDEX NAME)

RN 17842-10-3 HCAPLUS
CN 1,4-Oxathiin-3-carboxanilide, 5,6-dihydro-2,2',4',6'-tetramethyl-,
4,4-dioxide (8CI) (CA INDEX NAME)

RN 17843-68-4 HCAPLUS CN 1,4-Oxathin-3-carboxy-o-toluidide, 5'-chloro-5,6-dihydro-2-methyl-, 4,4-dioxide (BCI) (CA INDEX NAME)

RN 17843-81-1 HCAPLUS
CN Anthranilic acid, N-{(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl}-,
S,S-dioxide (8CI) (CA INDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 17758-05-3 HCAPLUS
CN 1,4-oxathiin-3-carboxamide, N-(2,5-dimethylphenyl)-5,6-dihydro-2-methyl-,4,4-dioxide (901) (CA INDEX NAME)

RN 17762-58-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-(4-chloro-Z-methylphenyl)-5,6-dihydro-Z-methylphenyl), 4,4-dioxide (9CI) (CA INDEX NAME)

RN 17762-75-3 HCAPLUS
CN 1,4-Oxachiin-3-carboxamide, 5,6-dihydro-N-(4-methoxy-2-methylphenyl)-2-methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

RN 17762-76-4 HCAPLUS CN 1,4-Oxathiin-3-carboxamide, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2methyl-, 4,4-dioxide (9CI) (CA IMDEX NAME)

L12 ANSWER 48 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 17946-62-2 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[2-(aminocarbonyl)phenyl]-5,6-dihydro-2methyl-, 4,4-dioxide (9CI) (CA INDEX NAME)

L12 ANSWER 49 OF 51 HCAPLUS COPYRIGHT 2007 ACS ON STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1968:21147 RCAPLUS
DOCUMENT NUMBER: 66:21147 REAPLUS
CORPORATE SOURCE: Fungitoxic spectrum of oxathiin compounds
Edgington, Lloyd V.; Barron, G. L.
Univ. Guelph, Guelph, Can.
Phytopathology (1967), 57(11), 1256-7
CODEN: PHYTAJ; ISSN: 0031-949X
JOURNAL
English
Ba Fifty percent inhibitory conces. (LC50) of 2,3-dihydro-5-carb-

MENT TYPE: Journal JUNGE: Journal LOSS of 2,3-dihydro-5-carboxanilido-6-mechyl-1,4-oxathin (D735) and 2,3-dihydro-5-carboxanilido-6-mechyl-1,4-oxathin (P735) and 2,3-dihydro-5-(o-phenylcarboxanilido)-6-mechyl-1,4-oxathin (P735) and 2,3-dihydro-5-(o-phenylcarboxanilido)-6-mechyl-1,4-oxathin (P735) toward 33 Deuteromycetes, Phycomycetes, and Basidiomycetes were determined Both compds. were highly toxic to the Basidiomycetes were determined Both compds. were highly toxic to the Basidiomycetes and both had LC50 values < 5 + 10-6M towards both Rhizoctonia solani and Polyporus giganteus. D735 was only slightly or moderately toxic to other fungi tested, except towards Vercicilium albo-atrum and Monilia cinerea f. americana (LC50 values < 8 + 10-6M and < 5 + 10-6M, resp.). F427 was also highly toxic towards all members of Porosporae examined with LC50 values ranging 5 + 10-6M-2 + 10-9M against Alternaria solani, Stemphylium botryosum, Bipolaris sorokinianum, Drechslera, Curvularia geniculata, Dichotomophthora indica, Dendryphiella salina, Dendryphion laxum, and Torula herbarum. In the Phialosporae, F427 was highly toxic only to Aspergillus species and had LC50 values < 5 + 10-6M towards A. amstelodami, A. flavus, A. fungatus, and A. niger. In the Arthrosporae, F427 was moderately toxic to both species tested, with LC50 values of 20 + 10-6 and 9 + 10-6M towards Amblyosporium botrytis and olidiodendron truncatum, resp.

the Blastosporae, F427 was highly toxic to Cladosporium cucumerinum, Botrytis species, and M. cinerea f. americanum with LC50 5 + 10-6M towards each of these species, but was only slightly inhibitory towards the yeasts Rhodotorula aurantiaca, and Candida humicola. F427 was not inhibitory towards any of the species of Annellosporae, Sympodulosporae, or Aleuriosporae examined, except towards Pithomyces chartarum (LC50 <5 + 10-6M). In the Phycomycetes, F427 was highly toxic towards Cunninghamella echinulata and Thamnidium elegans but only moderately

: to Mucor species and Rhizopus nigricans LC50 values <5 + 10-6, <5 + 10-6, 22 + 10-6, and 27 + 10-6M, resp. Activity against C. echinulata suggests a possible activity of F427 against other mucorales such as Choanephora cucurbitarum, a parasite of cucurbits.

therefore has a wider spectrum of fungicidal activity than D735, although it does show a preference for certain taxonomic groupings. 6577-34-0P RE: SPN (Synthetic preparation): PREP (Preparation)

(preparation of)
6577-34-0 HCAPUUS
1,4-Oxathiin-3-carboxamide, N-(1,1'-biphenyl)-2-yl-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1967:95055 HCAPLUS
DOCUMENT NUMBER: 66:95055
TITLE: 2,3-Dihydro-5-carboxemide-6-methyl-1,4-oxathiin
PATENT ASSIGNEE(S): United States Rubber Co.
Neth. Appl., 18 pp.
COOPE: NAXXAN
DOCUMENT TYPE: Patent
LANGUAGE: Dutch
FAMILY ACC. NUM. COUNT: 2 LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6605525	A	19661027	NL 1966-5525	19660425
US 3393202	A	19680716	US 1965-451048	19650426
				19660228
BR 6677408	D0	19730809	BR 1966-177408	
RE 679985	A	19661003	BE 1966-679985	19660425
IL 25635	A	19700420	IL 1966-25635	19660426
NL 6910431	A	19691027	NL 1969-10431	19690708
	_	1707101		
PRIORITY APPLN. INFO.:			US 1965-451048 A	19650426

For diagram(s), see printed CA Issue.
The title compds. (I) are prepared by reaction of an αchloroacetylacetamide or a lower alkyl ester of α-chloroacetylacetic
acid with HSC2H4OH. Thus, to 150 g. AcCH2CONRPh in 1 l. C6H6 was added

in 1.5 hrs. 72 ml. SO2C12, the mixture stirred 0.5 hrs., and filtered to

yield
131 g. AccHclconHPh (II), m. 136-8°. To 63.5 g. II in 300 ml. C6H6
was added in 2 hrs. <30°, 20.4 g. KOH, 22.2 ml. HSC2H4OH, and 40
ml. MeOH and the mixture stirred 1 hr., filtered, the filtrate concentrated, the mixture stirred 1 hr., filtered, the filtrate residue dissolved in C6H6, acidified with 0.8 g. 4-MeC6H4SO3H, the solution

solution
refluxed until 5 ml. H2O separated and concentrated to yield 45.8 g. I
(R = NRPh)
(III), m. 93-5* (alc.). To 260 g. AccH2Co2Et was added 270 g.
SO2C12 in 3 hrs. at 0-5*, the mixture kept overnight, and distilled to
yield 300 g. AccHC1Co2Et (IV), bl6 88-90*. To 33 g. IV in 200 ml.
C6H6 was added in 1.5 hrs. 300*, 13.6 g. KOM, 15 ml. HSC2H4OH, and
30 ml. MeOH, the mixture stirred 1.5 hrs., filtered, concentrated, the

taken up in C6H6, acidified with 4-MeC6H4SO3H, the solution refluxed

until

until
3.4 ml. H2O separated, washed with H2O, and concentrated to yield 23 g.

I (R = OEt)
(V), bl 107-10°. To 188 g. V in 50 ml. alc. was added 60 g. NaOH
in 400 ml. H2O and the mixture refluxed 0.5 hrs., acidified with HCl, and
filtered to yield 134 g. I (R = ON) (VI), m. 18O-1° (alc.). To 12
g. VI in 200 ml. CHCl3 was added 16 ml. SOC12, the mixture refluxed 2

the solution concentrated, the residue dissolved in C6H6 and 37.2 g. 2 in C6H6 added, to yield after work up 38 g. III. The following I were prepared

Similar methods (R, m.p., or b.p., and % yield given): NHC6H4CO2H-4, 249-51*, 47; morpholino, b2 168-70*, 80; NHNH2, 190-3*, 75; NH2, 172-4*, 50; NHPr-iso, 117-19*, 65; NHCHZCH:CAL2, 73*, 66; NHBU, 85-6*, 70; NHBU-iso,

6577-34-0 HCAPLUS
1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)

(Continued) L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

6577-38-4 HCAPLUS 1,4-Oxathiln-3-carboxamide, N-(2,4-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13582-27-9 RCAPLUS Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-(8CI) (CA INDEX NAME)

13582-44-0 HCAPLUS Anthranilic acid, N-[(5,6-dihydro-2-methyl-1,4-oxathiin-3-yl)carbonyl]-, methyl ester (8CI) (CA INDEX NAME)

1,4-Oxathiin-3-carboxamide, N-(2-ethylphenyl)-5,6-dihydro-2-methyl- (9CI)

L12 ANSWER 50 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN

1]582-86-0 HCAPLUS 1,4-0xathiin-3-carboxy-o-toluidide, N-ethyl-5,6-dihydro-2-methyl- (8CI) (CA INDEX NAME)

14316-45-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-{2,6-diethylphenyl}-5,6-dihydro-2-methyl-{SCI} (CA INDEX HAME)

1.12 ANSWER SO OF ST HCAPLUS COPYRIGHT 2007 ACS ON STN

13582-66-6 HCAPLUS 1,4-Oxathiin-3-carboxanilide, 2'-carbamoyl-5,6-dihydro-2-methyl- (8CI) (CA INDEX NAME)

13582-78-0 HCAPLUS 1,4-0xathiin-3-carboxamide, N-(2,3-dimethylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13582-79-1 HCAPLUS 1392-79-1 HCAPLUS 1,4-Oxathiin-3-carboxamide, N-(3-chloro-2-methylphenyl)-5,6-dihydro-2-methyl-(9CI) (CA INDEX NAME)

13582-84-8 HCAPLUS 1,4-Oxathiin-3-carboxamida, N-(2-chloro-6-methylphenyl)-5,6-dihydro-2-methyl- (9C1) (CA INDEX NAME)

L12 ANSWER 51 OF 51 HCAPLUS COPYRIGHT 2007 ACS on STN ED Entered STN: 22 Apr 2001 ACCESSION NUMBER: 1966:438564 HCAPLUS

ORIGINAL REFERENCE NO.:

1966:438506 HAAPJUS 65:38564 65:7190g-h,7191a-b Carboxanidooxathiin biocides Von Schmeling, Bogislav; Kulka, Marshall; Thiara, Dalel S.; Narrison, William A. United States Rubber Co. INVENTOR(S):

6 pp. Patent

PATENT ASSIGNEE(S): SOURCE: DOCUMENT TYPE: LANGUAGE:

Unavailable

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

APPLICATION NO. PATENT NO. KIND DATE

DATE us 1965-451011 US 3249499 PRIORITY APPLN. INFO.: 19660503

For diagram(s), see printed CA Issue.

Systemic fungicides and bactericides (I) were prepared and tested against Uronyces phaseoli typica, Rhizoctonis solani, and Staphylococcus aureus. The oxathins were prepared by 2 methods: (a) reaction of an a-chloroacetoacetamide with SO2Cl2 in C6H6, then with HSCH2CH2OH (II) under basic conditions, followed by acid dehydration or (b) chlorination of the alkyl acetoacetate with SO2Cl2, treatment with II, acid dehydration, salaring-hydrolysis, conversion to the acid chloride

SOC12, and reaction with an amine to form the amide. Thus, 2,3-dihydro-5-carboxanilido-6-methyl-1,4-oxathiin (Ia), m. 93-5° was prepared by adding a solution of 20.4 g. KOH, 22.5 g. II and 40 ml.

was prepared by adding a solution of 20.4 g. ROH. 22.5 g. 11 and 40 ml. to a stirred suspension of 63.5 g. a-chloroacetoacetanilide and 300 ml. dry C6H6 dropwise in 2 hrs. <30°. The mixture was stirred 1 hr., filtered, solvent stripped, extracted with C6H6, washed with H2O until neutral, acidified with 0.8 g. p-tolluenesulfonic acid, refluxed to remove 5 ml. H2.0 washed, and stripped to give 65% I. The following I (R = H) were prepared (R'. m.p., and 4 yield by method a and method b given): o-tolyl (IIII), 88-9°, 43, -; m-tolyl (IV), 83-5°, 46, 75; p-tolyl, 95-8°, -, 14; o-chlorophenyl, 83-5°, 44, -; p-chlorophenyl, 130-2°, 48, -; 2-biphenylyl, 125-7°, -, 23; butyl, 85-6°, -, 70°, cyclohexyl, 127-8°, -, 77; allyl, 73°, -, 66; a-maphthyl, 125-7°, -, 21; p-ethoxyphenyl, 83-4.5°, -, 65. I (R = Me, R' = Ph), m. 11-14°, was prepared in 728 yield by method b. In sprays at 50 ppm. Ia, III, and IV all gave 90-100% control of U. phaseoli typica which was also controlled by seed treatment with Ia at 8 oz./100 lb. seed or by

treatment at 20 ppm. R. solani on cotton seedlings was controlled by 20 ppm: Ia, III, or IV in the soil or by 20 z. Ia/100 lb. seed or by and III at 225 ppm. killed S. aureus.

IT 6577-30-69, 1,4-Oxathin-3-carboxy-o-toluidide, 5,6-dihydro-2-methyl-6577-34-0P, 1,4-Oxathiin-3-carboxy-2,4-y-xylidide, 5,6-dihydro-2-methyl-2'-phenyl-6577-38-4P, 1,4-Oxathiin-3-carboxy-2,4-y-xylidide, 5,6-dihydro-2-methyl-RL: PREP (Preparation) (manufacture and use as pesticide)

RN 6577-30-6 HCAPLUS (N. 1,4-Oxathiin-3-carboxamide, 5,6-dihydro-2-methyl-N-(2-methylphenyl)-(9CI)

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RN 6577-34-0 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-[1,1'-biphenyl]-2-yl-5,6-dihydro-2-methyl(9C1) (CA INDEX NAME)

RN 6577-38-4 HCAPLUS
CN 1,4-Oxathiin-3-carboxamide, N-{2,4-dimethylphenyl}-5,6-dihydro-2-methyl(9CI) (CA INDEX NAME)